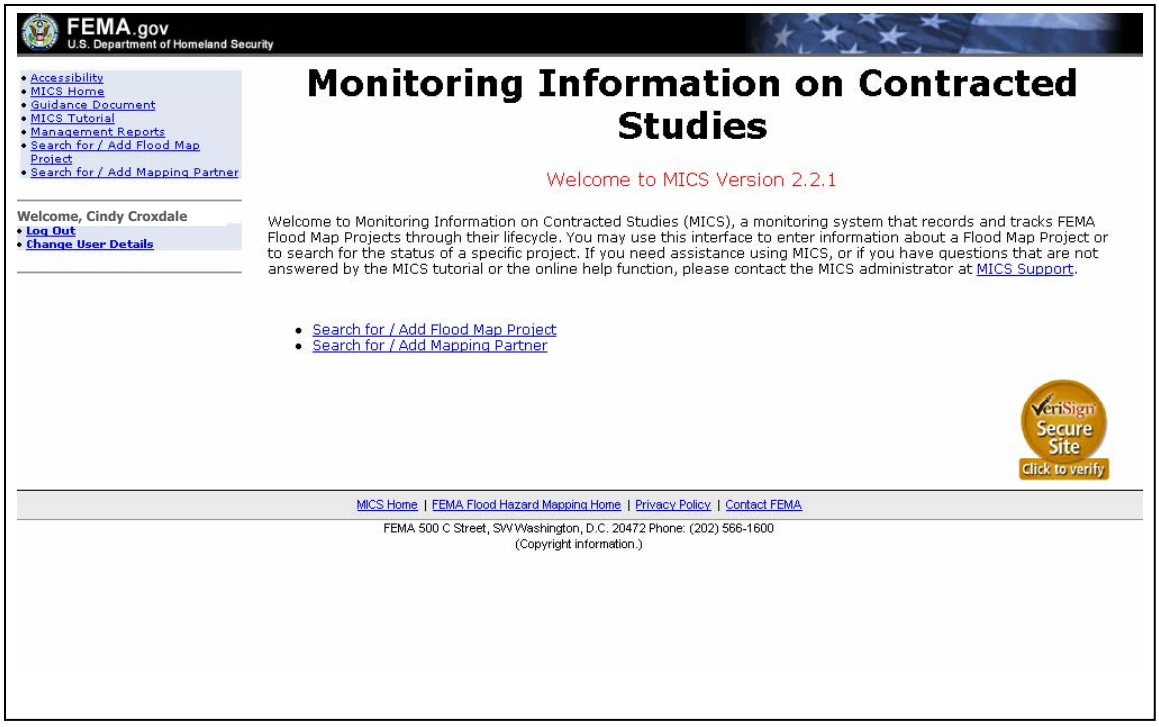
MICS Guidance

for

Flood Hazard Mapping Partners



4/25/2003

MICS Guidance for Flood Hazard Mapping Partners

Figures

Tables

Summary of Changes

The following Summary of Changes details revisions of the MICS Guidance for Flood Hazard Mapping Partners subsequent to the initial publication of this document in December 2002. These changes represent new or updated guidance for Flood Hazard Mapping Partners. Further information on document control is located in Section XII of this document.

Date	Affected Section(s)	Summary of Change
4/25/2003	Chapter VI	Added data entry guidance for contract numbers
4/25/2003	Chapter XI	Updated Permissions Matrix to reflect State selection control and broader access to the Correspondence Tracker

MICS Guidance for Flood Hazard Mapping Partners

I Introduction

This document provides system descriptions and user requirements for the Monitoring Information on Contracted Studies (MICS) database. MICS is a Flood Map Project-centric, Web-based software application that records and tracks Federal Emergency Management Agency (FEMA) Flood Map Projects nationwide through their lifecycle, and is designed to complement FEMA's Community Information System (CIS). MICS enables FEMA to monitor, at a glance, the work being performed on any given Flood Map Project, defined as the aggregate tasks that produce a Flood Insurance Study (FIS) and result in a new or revised Flood Insurance Rate Map (FIRM), usually with an accompanying FIS report.

MICS is accessible by FEMA, its Study Contractors (SCs), Cooperating Technical Partners (CTPs), and Map Coordination Contractors (MCCs), collectively known as Mapping Partners. Benefits associated with Flood Map Projects lifecycle tracking include the facilitation of FEMA's project monitoring and planning, the comprehensive documentation of milestones and projected completion dates, and the added accountability for Flood Map Project funding.

II System Description

The MICS database is located on the World Wide Web at https://mics.fema.gov. Tracking of Flood Map Projects in MICS began in 2000, when MICS Version 1.0 was launched. MICS was upgraded in 2001 with the launch of Version 2.0, reflecting FEMA's Map Modernization Initiative. Each record from MICS Version 1.0 is identified with a Project Initiation date of 01/01/2000. Version 2.0 records are dated 2002 or later, reflecting the date the project was entered into the database.

MICS is password-protected and contains encrypted security in order to protect the system data. Authorized users are to complete the MICS multimedia tutorial on-line at https://mics.fema.gov/mics/Tutorial/Tutorial.asp before entering or updating any information in the database. The tutorial will familiarize users with the MICS interface and demonstrate how the system is used to manage Flood Map Projects.

When a Flood Map Project is to be entered in MICS, the FEMA Project Lead is to designate one of the Mapping Partners on that project as the MICS Lead. The MICS Lead, unless otherwise directed by the FEMA Lead, will be responsible for creating new MICS records and adding specific information associated with their assigned individual Flood Map Projects. Throughout the lifecycle of the Flood Map Project, FEMA and its Mapping Partners are required to populate MICS in accordance with their roles and responsibilities as outlined in Section V of this document.

III System Contents/Data Types

MICS is designed to record specific data relating to the work done within the context of a Flood Map Project. These data range from the dates that specific activities were conducted to the details associated with each studied or restudied flooding source. Each MICS record tells a story about the scope of work, Mapping Partner assignments, cost and schedules associated with each task, tracking of the affected FISs and FIRMs, and any issues that arose during the lifecycle of the Flood Map Project. MICS also plays a valuable planning role through its capture of estimated costs and completion dates of specific tasks within individual Flood Map Projects.

Information in MICS is grouped into several categories as follows:

- General Information: Much of this information is accessible via the Flood Map Project Overview screen and includes identification of all entities involved in the project as well as the affected flooding sources, FISs, and FIRMs.

- Project History Information (Dates): Throughout MICS are placeholders to record the dates that specific activities were conducted. Examples of this are the dates on the Project Scoping Summary screen and the Post-Preliminary Status Summary screen.

- Task Assignment Information: Project tasks on a Flood Map Project will be assigned to Mapping Partners with an associated scope of work. The task assignments are made and displayed on the Summary of Flood Mapping Tasks (Activities) screen. Once the tasks are assigned, a Contract Details screen for the Mapping Partner is created, pre-populated with the appropriate task name(s).

- Contracting Information (Scope, Schedule, and Budget): The Contract Details screen for each Mapping Partner contains scope, schedule, and budget information for the specific tasks performed by that Mapping Partner within the project. Some of the scope and budget information is then reported on the Summary of Flood Mapping Tasks (Activities) screen.

- Records of Communication and Significant Events: Each Mapping Partner may document communication with other Mapping Partners or interested parties using the Correspondence Tracker, accessible through the Contract Details page for each Mapping Partner. In addition, significant events that affect the project may be documented on the Project Diary screen.

IV MICS Access Policies

Access to MICS and the Mapping Partner and Flood Map Project information within the database is controlled with a three-tiered security model, discussed in Section XI. The following database and record access policies have been established in support of this model:

IV.1 Database Access

Users will be provided individual usernames and passwords by the MICS Administrator. Non-FEMA Mapping Partners will have access only to those Flood Map Projects to which they are assigned.

To restrict MICS access for parties no longer associated with Flood Map Projects, the MICS Administrator will periodically send a list of users associated with each Mapping Partner to the contact identified in the Mapping Partner Details screen (as shown in Figure 1, below). It is the responsibility of the primary contact, as described in the Memorandum of Agreement for the Use of MICS (Section X), to review the list and immediately notify the MICS Administrator if access should be terminated for any identified individual. In addition, users will be e-mailed a request for password renewal on a periodic basis (e.g. every 90 days).

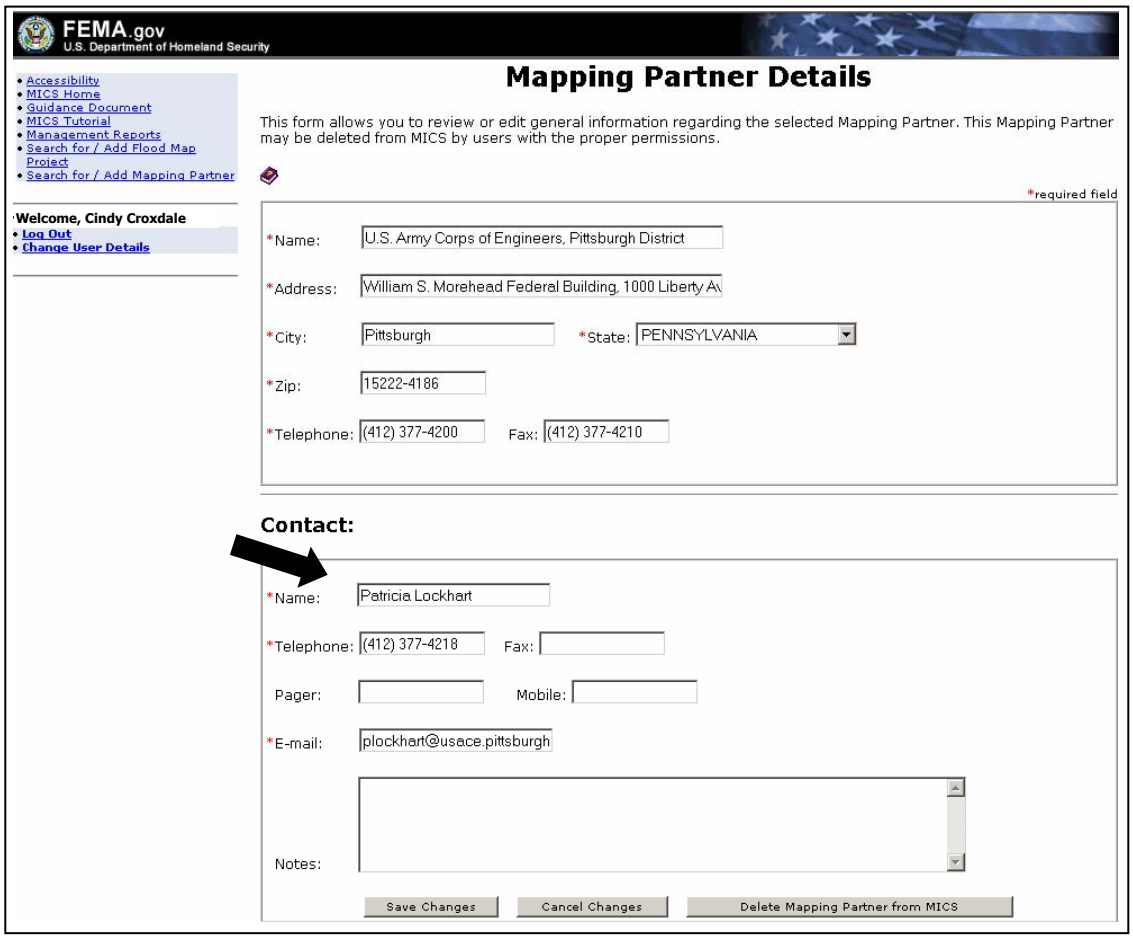


Figure 1. Mapping Partner Details

IV.2 Record Access

With the exception of FEMA, all Mapping Partners will have access to only those Flood Map Projects with which they are associated. For example, if Company XYZ is not an identified Mapping Partner in Flood Map Project 2002-0755, no data search by any individual in Company XYZ will yield a listing of that project in the search results table. For this reason, it is critical that the MICS Lead add all identified Mapping Partners associated with a particular Flood Map Project upon project initiation in MICS. The addition of Mapping Partners to Flood Map Projects in MICS is accomplished in Step 3 of the Flood Map Project Overview screen shown below in Figure 2.

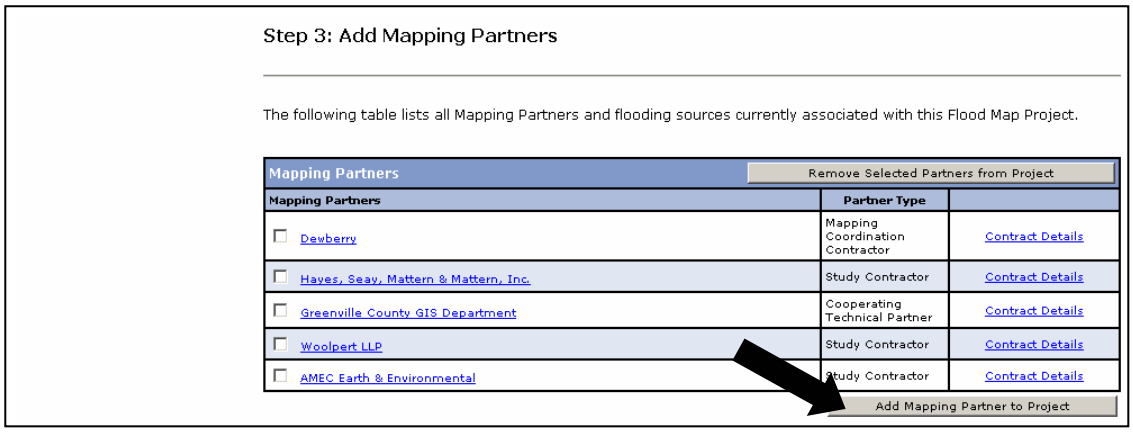


Figure 2. Add Mapping Partner via Flood Map Project Overview Screen

V Roles and Responsibilities

Each Mapping Partner has unique data entry responsibilities in MICS according to their entity type as shown in the overview provided as Figure 3. As further explained in Section V.2, it is important to note that the MICS Lead will be one of the Mapping Partners on a given Flood Map Project, and will be assigned the additional data entry responsibilities as shown below.

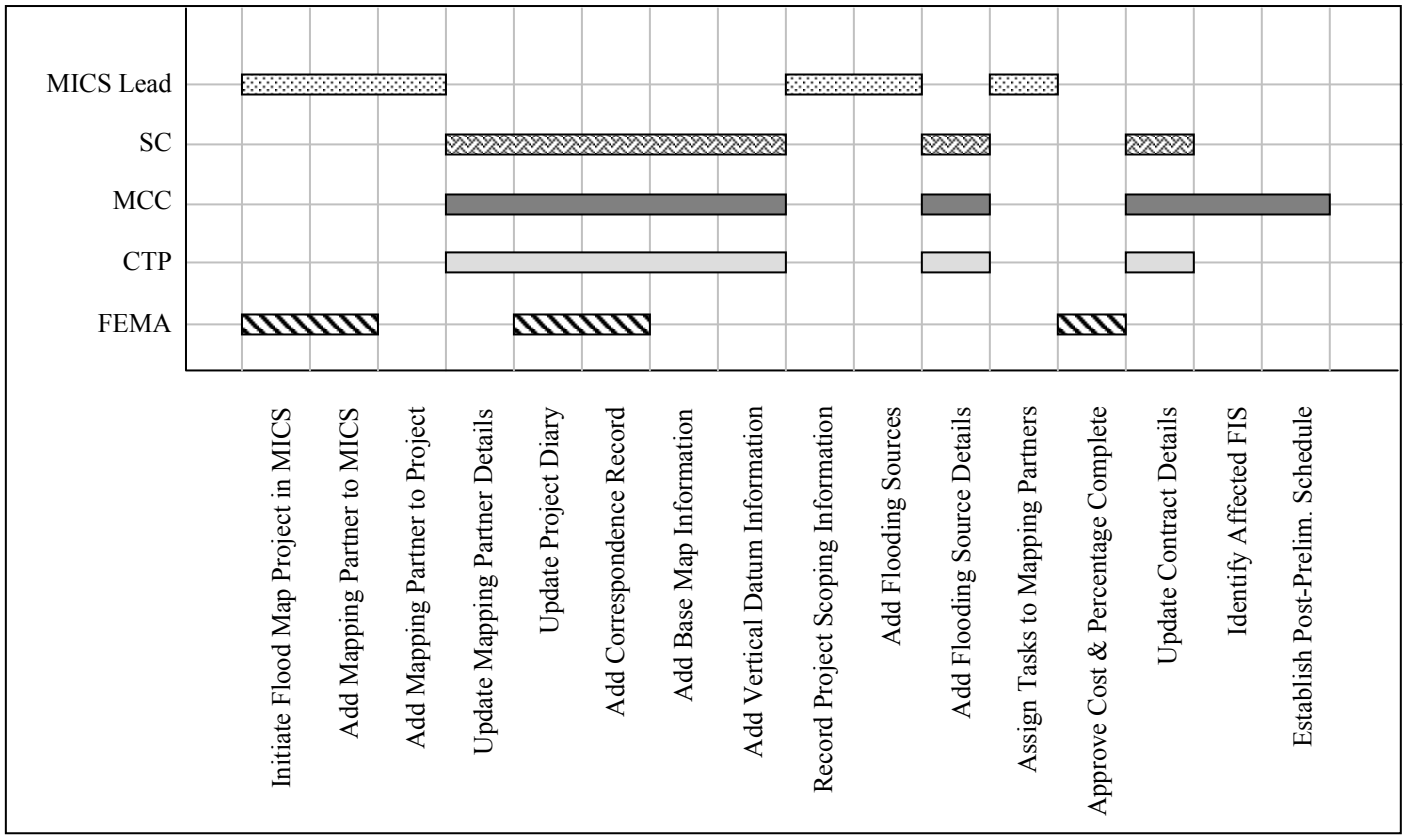


Figure 3. Overview of MICS Data Entry Responsibilities

The roles and responsibilities for all entities interfacing with MICS Partners are described below.

V.1 FEMA

The FEMA Lead for each Flood Map Project is required to oversee and approve cost and progress data on the Summary of Flood Mapping Tasks (Activities) screen, shown in Figure 4. The Summary of Flood Mapping Tasks (Activities) screen may be accessed from the left navigation bar and hyperlinks on the Flood Map Project Overview screen.

On the Summary of Flood Mapping Tasks (Activities) screen, FEMA approval is indicated by a check box under each hyperlinked entry on the Summary of Flood Mapping Tasks (Activities) screen. A checked box indicates that the data have been reviewed and approved by FEMA. When previously approved data are changed on the Contract Details page for individual Mapping Partners, the corresponding approval check boxes on the summary screen are cleared.

Each approval field also has a mouse rollover pop-up message to display the last date the information was entered and the last date the information was approved. At a minimum of once per month and/or at the 25%, 50%, 75% and 100% completion stages (see Section VIII for guidance on determining these milestones), the FEMA Lead will review and approve the progress of Flood Map Projects.

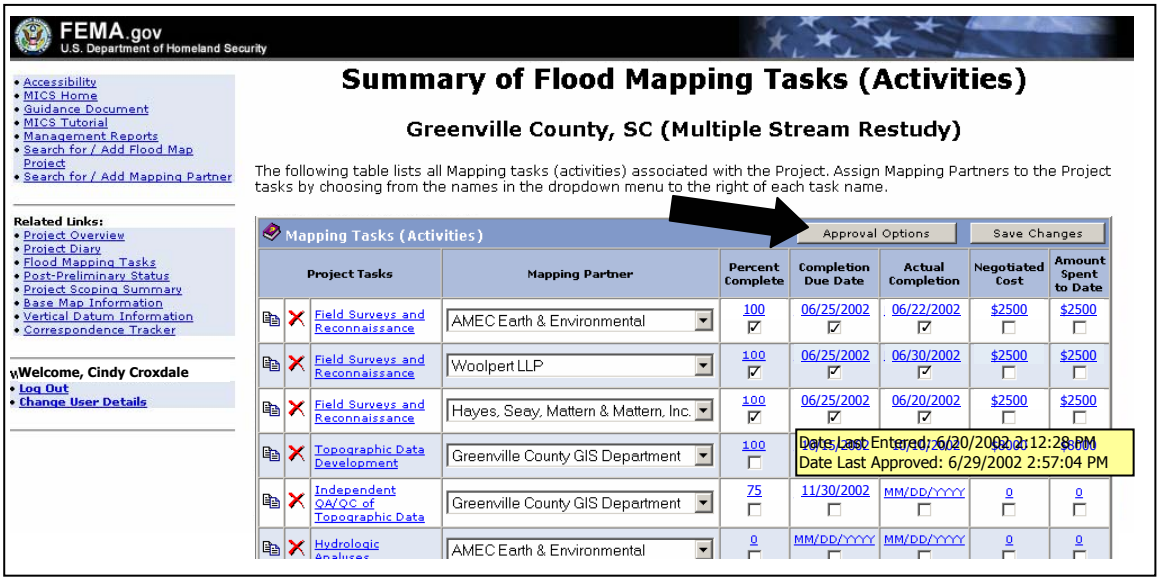


Figure 4. Summary of Flood Mapping Tasks (Activities): FEMA view

In order for FEMA approvals to be saved, the Approval Options button highlighted above in Figure 4 must be clicked. When this button is clicked, a window opens to provide several options to approve cost and schedule data as shown in Figure 5. FEMA may opt to approve only select items from the Summary of Flood Mapping Tasks (Activities) screen, approve all data for selected Mapping Partners, or approve all cost and schedule data for the entire project thereby alleviating the need for line-by-line approval.

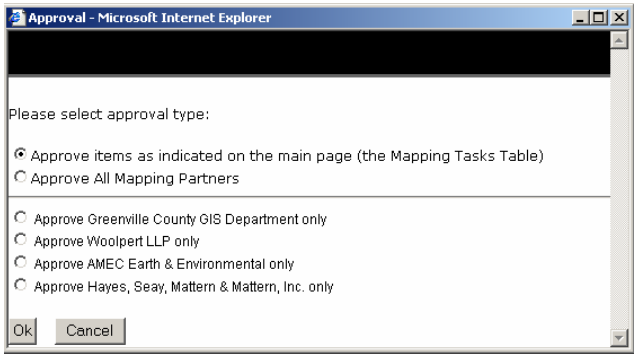


Figure 5. FEMA Approval Options

Cost and schedule information that appears on the Summary of Flood Mapping Tasks (Activities) page is automatically extracted from the Contract Details page for each Mapping Partner. A portion of a sample Contract Details page is shown below as Figure 6.

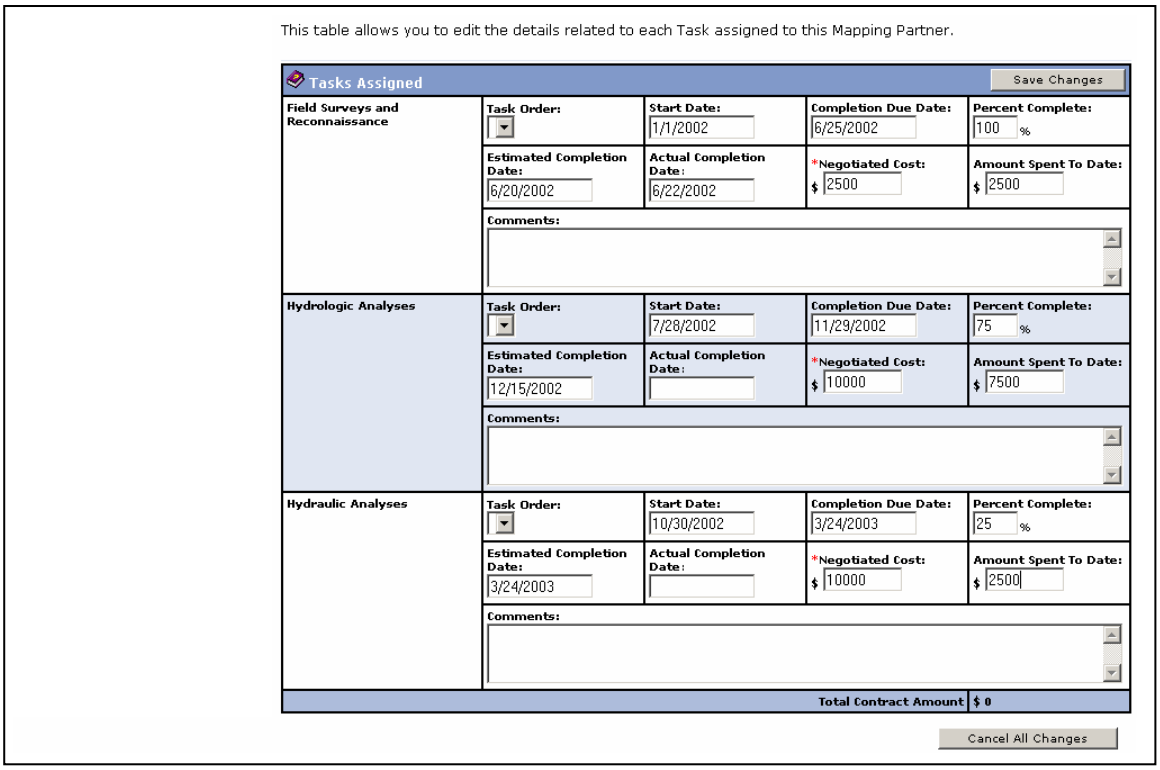


Figure 6. Sample Contract Details Screen

To further facilitate the FEMA approval functionality, a search of projects that have approval pending is available through the Flood Map Project Search screen shown below as Figure 7.

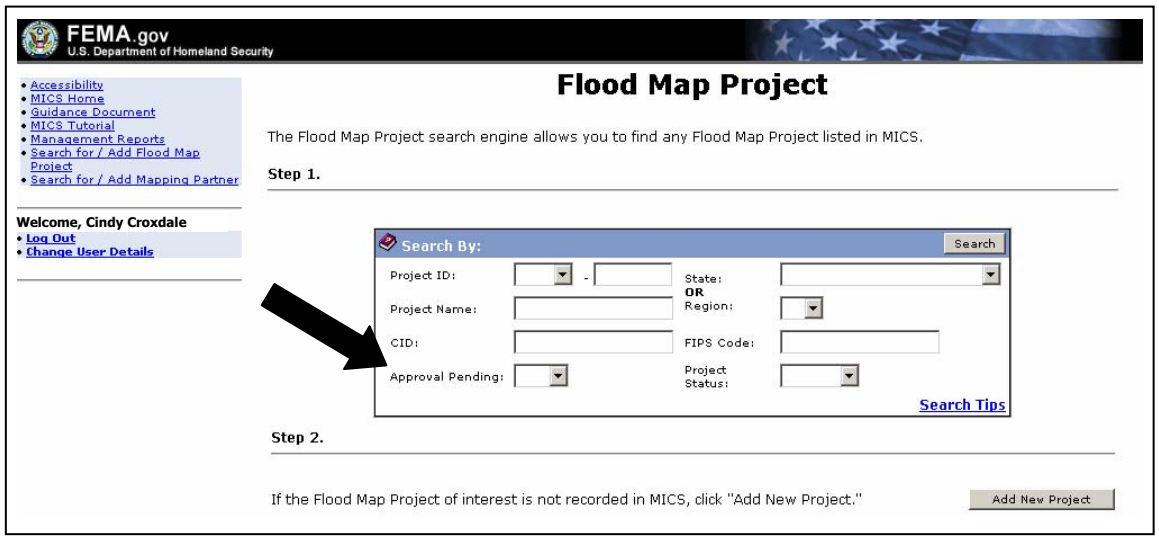


Figure 7. Flood Map Project Search Screen

V.2 MICS Lead

The MICS Lead, assigned on a project-by-project basis by the FEMA Lead, is a Mapping Partner associated with the Flood Map Project and is responsible for initiating a Flood Map Project record in MICS. This involves adding and naming a record, entering Project Scoping dates, documenting the affected Mapping Partners and flooding sources, and documenting the tasks assigned to the Mapping Partners at the Scoping Meeting. This Flood Map Project "building" process is documented in Steps 1 through 5 on the Flood Map Project Overview screen, shown in Figure 8.

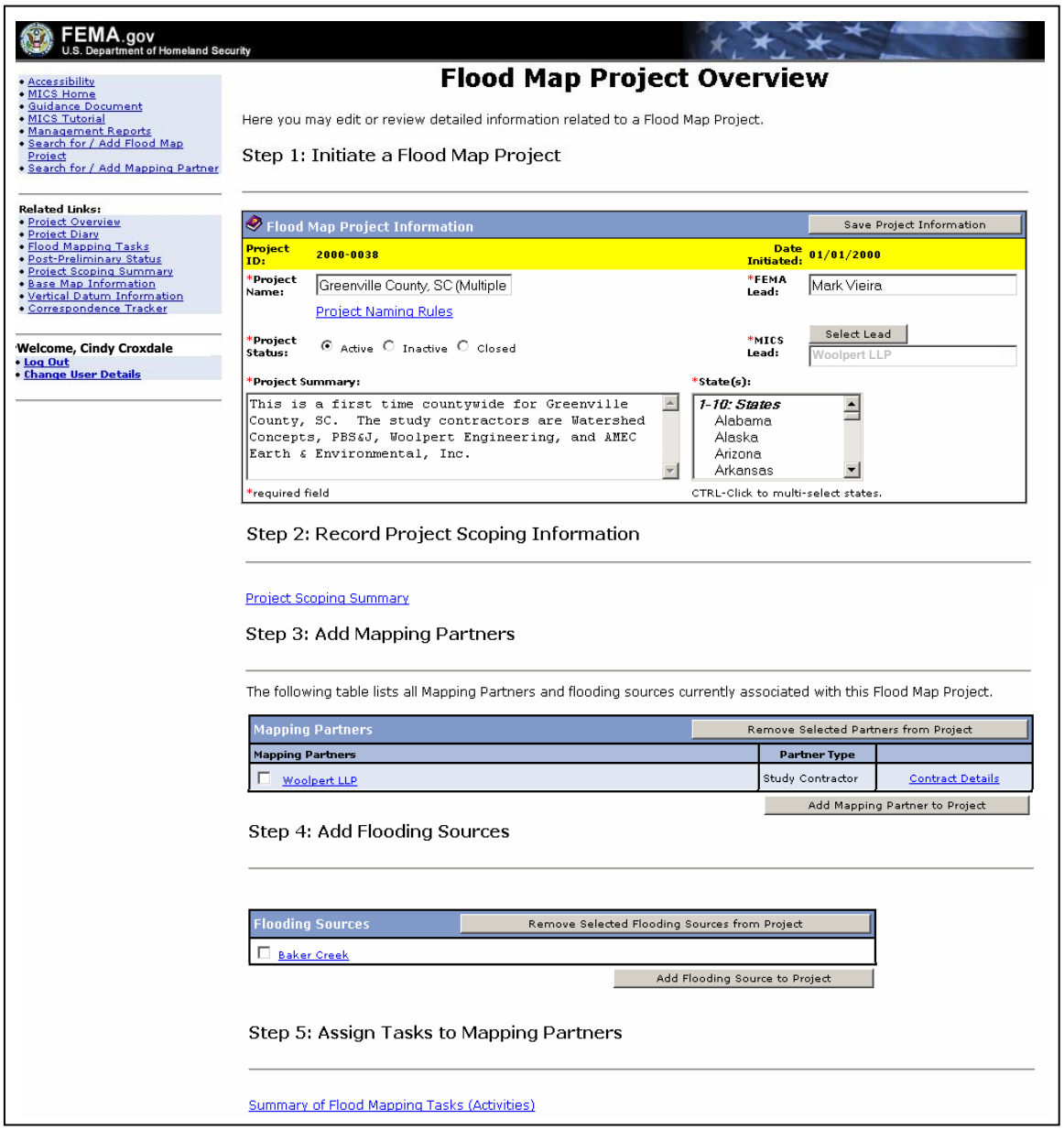


Figure 8. Flood Map Project Overview Screen

The MICS Lead will also collaborate with other Mapping Partners to ensure the information entered in the database is correct, and update data in the event of a change in the scope of the project. Data entry requirements for the MICS Lead and other Mapping Partners are provided in Figure 3. It is important to note that because the MICS Lead will be one of the Flood Map Partners, the MICS Lead responsibilities are not shown to overlap those of the SC, CTP and MCC. The MICS Lead is shown whenever it is solely responsible for a specific data entry item. It is important to note that while the MICS Lead has project initiation responsibilities and the FEMA Lead is responsible for the oversight and approval of cost and progress data information, all other Mapping Partners are responsible for cost and progress data entry and updates on the tasks to which they are assigned.

V.3 Other Mapping Partners (SC, CTP and MCC)

While the MICS Lead has the bulk of the data entry responsibility, all Mapping Partners are responsible for entering and updating tracking information on tasks to which they are assigned. As indicated in Section XI, all entities that collaborate on a Flood Map Project are required to maintain specific information related to their organization in the Contract Details and Mapping Partner Details screens.

To ensure the security of cost and schedule information entered by individual Mapping Partners, SCs, CTPs and MCCs may not view other partner's information. Figure 9 illustrates the Summary of Flood Mapping Tasks (Activities) screen for non-FEMA viewers. In the example below, Robert Johnson (an employee of Jamestown Engineers) is logged into MICS and can only view the information for tasks that are assigned to his company.

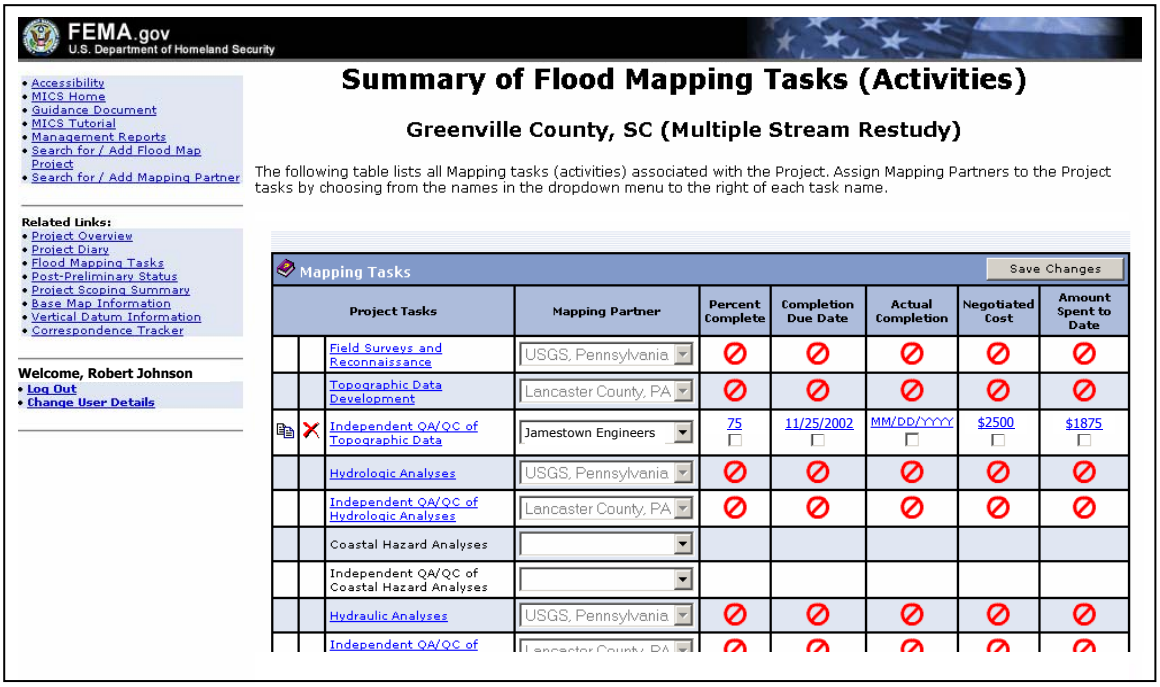


Figure 9. Summary of Flood Mapping Tasks (Activities): Non-FEMA view

General information screens, such as Base Map Information and Vertical Datum Information, may be accessed and edited by all Mapping Partners.

Each Mapping Partner is required (and enabled via database permissions see Section XI) to enter data for Flood Map Projects commensurate with their entity type. For example, the MCC assigned to the project is responsible for updating post-preliminary status information for FISs and FIRMs associated with the project. This information is accessed through Step 6 of the Flood Map Project Overview screen as well as a separate hyperlink under Step 7 of the same screen as shown in Figure 10.

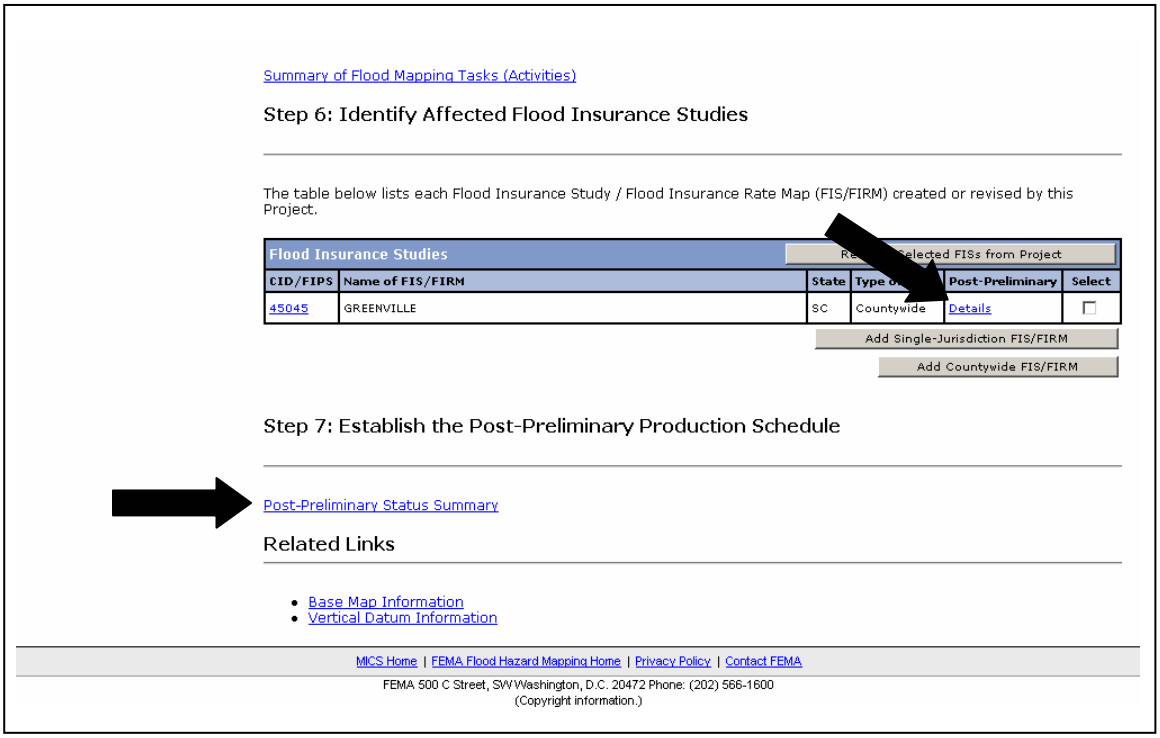


Figure 10. Post-Preliminary Schedule via Flood Map Project Overview Screen

Only the MCC may enter and edit information in the screen that is accessed from the hyperlinks shown above, while all other Mapping Partners have permission to view the information. Figure 11 shows the screen that the MCC will use to enter and edit post-preliminary information accessed from the "Details" hyperlink. Figure 12 shows an at-a-glance summary of the post-preliminary status of all affected FISs and FIRMs associated with the Flood Map Project accessed from the "Post-Preliminary Status Summary hyperlink.

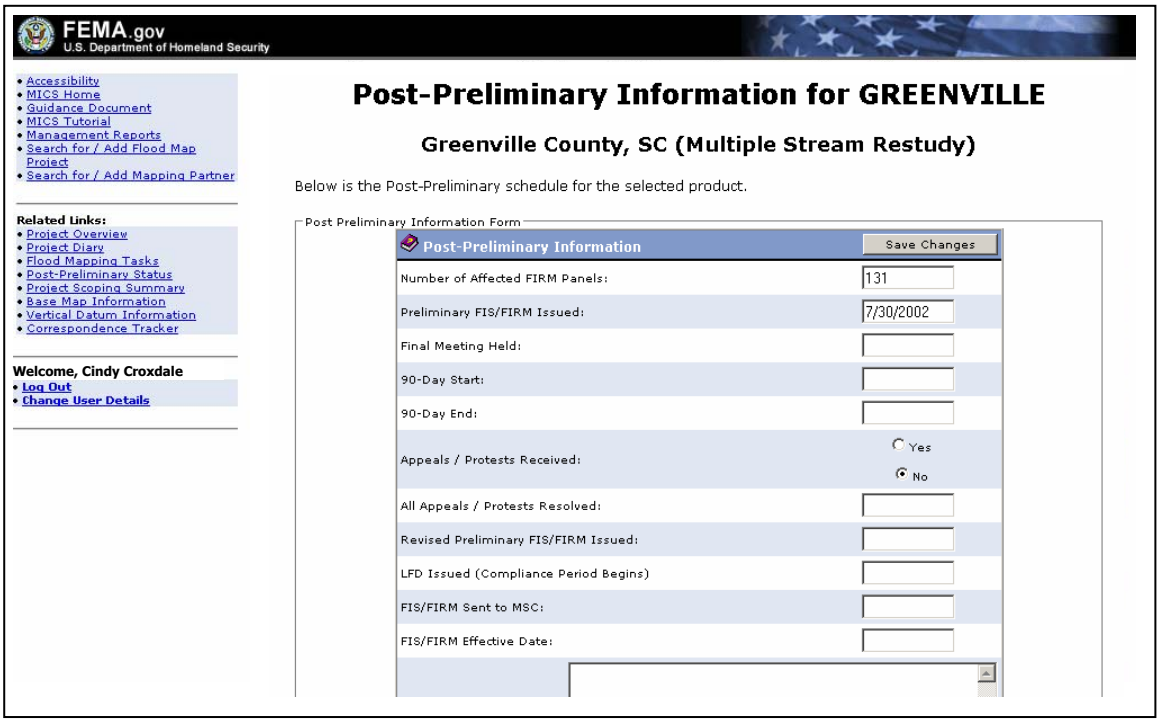


Figure 11. Post-Preliminary Status Data Entry Screen

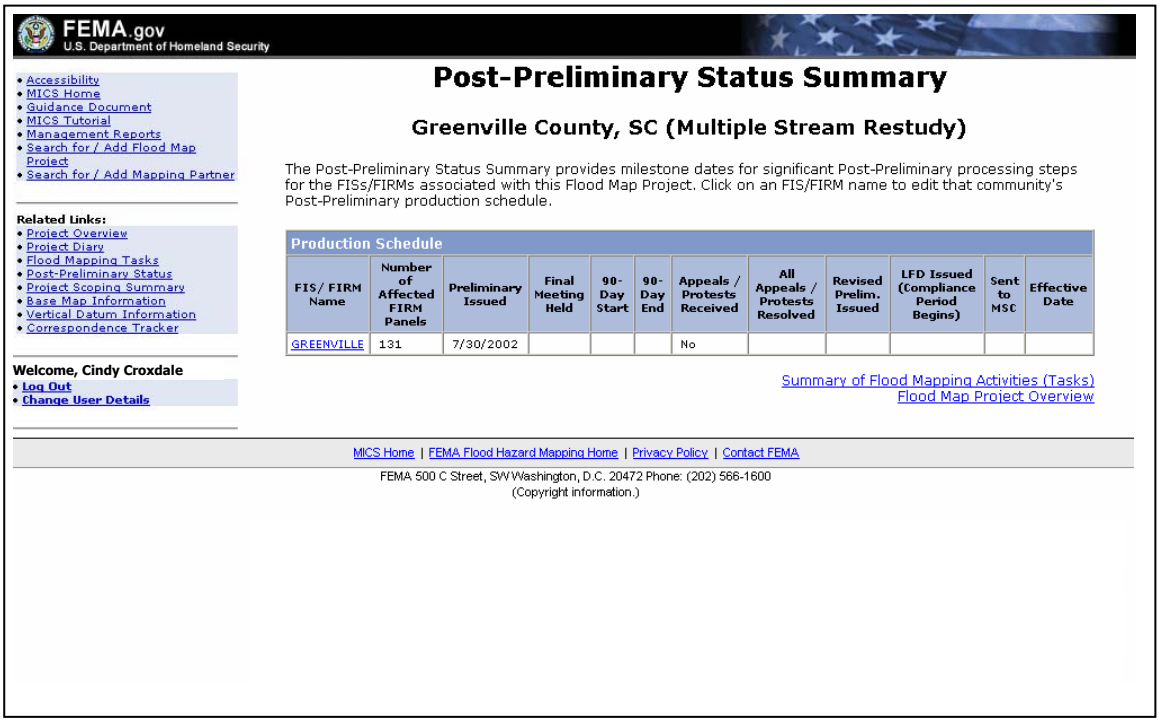


Figure 12. Post-Preliminary Status Summary Screen

VI Data Entry Protocols

Data entered into MICS must be consistent and in accordance with the standards set forth in this document. Adhering to these standards improves accuracy and consistency in searching for and reporting on Flood Map Projects.

The MICS Lead should use the templates provided in Section IX during the Scoping Meeting to capture the pertinent data needed to initiate a project in MICS. In addition to the information in the online help function, specific guidance on Flood Map Project and Mapping Partner naming conventions, documenting contract numbers, recording dates, and correcting data errors is provided in this section. The guidelines for reporting the status of assigned tasks are provided in Section VIII.

VI.1 Flood Map Project Naming Conventions

Limiting the project name to a primary and secondary reference will standardize the MICS project names and facilitate finding projects. If the Flood Map Project is primarily focused on a jurisdiction (community or county), the name of the jurisdiction, followed by the state, shall be the primary reference. Use the standard two-letter state abbreviations. The secondary reference (following the primary reference and placed in parentheses) shall be the stream or watershed name. If more than two streams are involved, the terms "multiple streams" or "multiple flooding sources" may take the place of the stream names.

Example: Cameron County, VA (James River restudy)

If the project is primarily focused on a watershed or stream, the name of the watershed or stream shall be the primary reference. The secondary reference (following the primary reference and placed in parentheses) shall be the affected communities. If more than two jurisdictions are involved, the terms "multiple [*state abbreviation*] communities" or "multiple [*state abbreviation*] counties" may take the place of the jurisdiction name(s). Again, use the standard two-letter abbreviations for states.

Example: York River Restudy (Multiple VA Counties)

Because a search for a project name might return several entries, use of a secondary reference enables the user to identify the correct record from the search results. Further aiding the search is the Initiation Date (the date the project was entered into MICS), which appears in the search results table.

Note: Abbreviations are not to be used except for state names.

VI.2 Mapping Partner Naming Conventions

A new Mapping Partner can only be added by FEMA or the MICS Lead. Before adding a Mapping Partner to MICS, the user is required to perform a search of the database to determine whether the entity to be added to the Flood Map Project has already had a record created in the system. When entering a new Mapping Partner, the following rules are to be used:

- Use the name printed on the Mapping Partner's official company letterhead.

  Example: John Doe & Associates

- Do not use abbreviations if they are not a part of the official company name.

  Example: Jane Doe Engineering, Ltd

  not: JDE

- The United States Army Corps of Engineers is to be entered as shown below, with the appropriate district name preceding the word "District." Do not use "COE" or "USACE" when entering Army Corps district offices.

  Example: U.S. Army Corps of Engineers, Alaska District

- United States Geological Survey offices are to be entered as shown below, with the appropriate state name, unabbreviated, preceding the word "District." Do not use "USGS" or state abbreviations when entering U.S. Geological Survey offices.

  Example: U.S. Geological Survey, Florida District

- CTP names are to be entered as shown.

  Example: Staten Island (Borough), NY

- All other state and Federal agencies that are not CTPs are to be entered with the name of the agency completely spelled out followed by the name of the state unabbreviated.

  Example: Natural Resources Conservation Service, Georgia

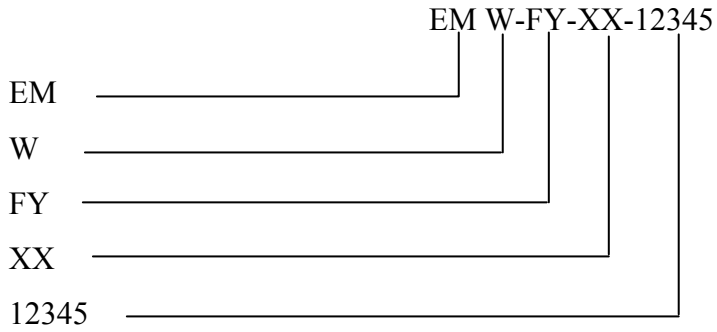
Other Mapping Partners will be able to edit their identifying information after FEMA or the MICS Lead has created a record for it; however, the naming convention outlined above shall be maintained.

VI.3 Contract Numbering Conventions

Each Mapping Partner may be assigned one or more Mapping Activities (Tasks) on a project. For each task, the Start Date, Completion Due Date, Percent Complete, Estimated Completion Date, Actual Completion Date, Negotiated Cost, and Amount Spent to Date fields on the Contract Details screen must be completed and periodically updated by the

assigned Mapping Partner until the task is complete. Level of Effort estimates for maintaining task data are detailed in Table 3.

The Contract Agreement Number is a required field to be completed when the Contract Details page is initially accessed. The contract number entered in this field is the FEMA Obligating Document Number assigned to a Flood Map Project, and is found on the FEMA financial instrument (e.g., contract, interagency agreement, grant). The Obligating Document Number will usually be a 15- to 17-digit code in the following format:



'EM' indicates a FEMA-generated financial instrument.

'W' represents the originating FEMA organizational element location. Most FEMA financial instruments contain in their coding structure the originating or purchasing location designation as a 1-character code. The location designation codes, locations, and organizational elements are as follows:

Code	Location	Organizational Element
A	Atlanta, GA	Region IV
B	Boston, MA	Region I
C	Chicago, IL	Region V
D	Denver, CO	Region VIII
E	Emmitsburg, MD	National Emergency Training Center
F	San Francisco, CA	Region IX
G	Blue Grass, KY	Blue Grass Storage Center
H	Hyattsville, MD	National Processing Service Center (NPSC)
K	Kansas City, MO	Region VII
L	Denton, TX	National Processing Service Center (NPSC)
M	California	National Processing Service Center (NPSC)
N	New York, NY	Region II
P	Philadelphia, PA	Region III
R	Round Hill, VA	Disaster Finance Center
S	Seattle, WA	Region X (Bothell, WA)
T	Denton, TX	Region VI
U	Denton, TX	National Teleregistration Center (NTC)
V	Round Hill, VA	Mt. Weather Emergency Assistance Center

Code	Location	Organizational Element
W	Washington, DC	FEMA Headquarters
Z	Pasadena, CA	Northridge Long-Term Disaster Recovery Area Office
0	FEMA	(used in some numbering conventions)

'FY' represents the four-digit fiscal year (e.g., 2003) in which the financial instrument was issued. The fiscal year can also be entered as the two-digit fiscal year for financial instruments issued prior to Fiscal Year 2000.

'XX' represents the 2-letter financial instrument type. Flood map projects will typically utilize one of the following codes:

Code	Description
CO	Contract
CA	Cooperative Agreement (other)
PA	Cooperative Agreement – Performance Partnership Agreement (PPA)
GR	Grant
IA	Interagency Agreement

'12345' represents the sequential serial number within the document type. This may be four or five digits, depending on the contract.

If the financial instrument number for the Flood Map Project being entered or updated deviates from the format specified above, ensure that it is a FEMA-issued financial instrument number. Numbers from other government agencies or other Mapping Partner entities are not to be entered in this field.

The Task Order field of the Add New/Delete Task Order (Mapping Activities) section is to be completed. Use three digits for the Task Order number and two digits for the Task number. Figures 13 and 14 provide examples.

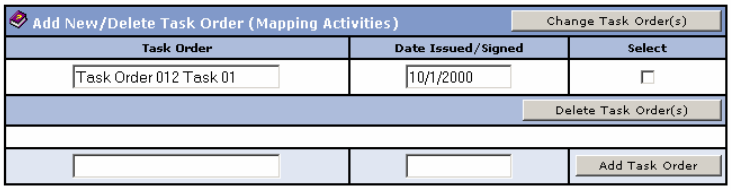


Figure 13. Example for EMW-2002-CO-12345, Task Order 012, Task 01

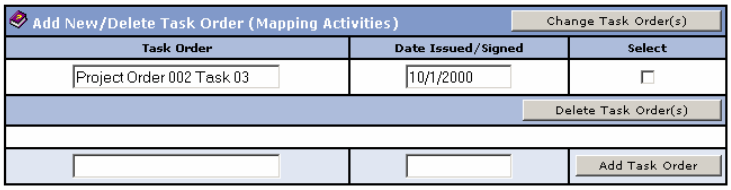


Figure 14. Example for EMW-2002-IA-1234, Project Order 002, Task 03

VI.4 Date Field Definitions

To ensure that the Mapping Partner entering information into the date fields is reporting consistent information, guidance defining the dates to be added is provided in Table 1.

Table 1. Date Field Definitions

Project Scoping Summary		
Pre-Scoping Phase		
Task	**Anticipated Date**	**Actual Date**
Contact Community	Date FEMA Lead plans to notify a community that its Flood Map Project needs have been identified and approved	Date FEMA Lead notifies the community that a Flood Map Project has been approved
Prepare Project Management Plan	Date FEMA Team plans to draft Preliminary Project Management Plan	Date Preliminary Project Management Plan is issued to Project Team
Form Project Team	Date FEMA Lead sets for initial Project Management Team conference call	Date coordination for Flood Map Project begins with Project Team
Perform Initial Research	Date FEMA Lead anticipates feedback from Project Team research assignments	Date Project Team submits research assignment feedback to FEMA Lead
Prepare Draft Scope of Project	Date FEMA Lead anticipates preparing scope based on research by Project Team	Date FEMA Lead holds meeting with Project Team to review research data, prepare scope, and schedule Scoping Meeting
Scoping Phase		
Task	**Anticipated Date**	**Actual Date**
Conduct Scoping Meeting	Date Project Team is scheduled to meet to refine data in draft scope	Date FEMA Lead has finished holding all meetings to refine draft scope
Post-Scoping Phase		
Task	**Anticipated Date**	**Actual Date**
Document Scoping Meeting	Date Project Team plans to distribute information from Scoping Meeting	Date minutes from Scoping Meeting are issued to Project Team
Prepare Statement of Work	Date FEMA Lead plans to meet with FEMA AO or CO to review/approve project plan	Date FEMA AO or CO approves distribution of Statement of Work or Mapping Activities Statement (MAS) to Project Team
Time and Cost Estimates Prepared	Date AO and/or CO and FEMA Lead plan to finalize time and cost estimates	Date time and cost estimates, Statement of Work, and/or MAS are finalized for issuance to Project Team

Table 1. Date Field Definitions				
Document Unmet Needs in Mapping Needs Update Support System (MNUSS)	Date Mapping Partner anticipates updating MNUSS database		Date Mapping Partner enters unmet need information into MNUSS database	
Finalize Project Management Plan	Date FEMA Lead in consultation with AO and/or CO plans to finalize Project Plan		Date FEMA Lead finalizes Project Management Plan	
Issue Task Order & Agreements	Date FEMA AO and/or CO plans to issue final Project Plan to Project Team		Date FEMA Regional office issues final Project Management Plan to Project Team	
Contract Details				
Task	**Date**			
Date Task Order was Issued/Signed	Actual date Task Order was issued or signed			
Task	**Start Date**	**Completion Due Date**	**Estimated Completion Date**	**Actual Completion Date**
Field Surveys and Reconnaissance	Date Mapping Partner begins field surveys and reconnaissance	Date Mapping Partner is scheduled to complete task	Date Mapping Partner anticipates completing task	Date Mapping Partner submits completed report to FEMA or designee
Topographic Data Development	Date Mapping Partner begins translating field survey data or receives information from resource	Date Mapping Partner is scheduled to complete task	Date Mapping Partner anticipates completing task	Date translation of field data is complete or is received by independent reviewer
Independent Quality Assurance/Quality Control (QA/QC) of Topographic Data	Date Mapping Partner begins independent review	Date Mapping Partner is scheduled to complete independent review	Date Mapping Partner anticipates completing independent review	Date all review comments have been addressed and documented by independent reviewer
Hydrologic Analyses	Date Mapping Partner assigned to task begins work	Date Mapping Partner is scheduled to complete analyses	Date Mapping Partner anticipates completing analyses	Date completed analysis is received by designated independent reviewer
Independent QA/QC of Hydrologic Analyses	Date Mapping Partner begins independent review	Date Mapping Partner is scheduled to complete independent review	Date Mapping Partner anticipates completing independent review	Date all review comments have been addressed and documented by independent reviewer
Coastal Analyses	Date Mapping Partner assigned to task begins work	Date Mapping Partner is scheduled to complete analyses	Date Mapping Partner anticipates completing analyses	Date completed analysis is received by designated reviewer
Independent QA/QC of Coastal Analyses	Date Mapping Partner begins independent review	Date Mapping Partner is scheduled to complete independent review	Date Mapping Partner anticipates completing independent review	Date all review comments have been addressed and documented by independent reviewer
Hydraulic Analyses	Date Mapping Partner assigned to task begins work	Date Mapping Partner is scheduled to complete analysis	Date Mapping Partner anticipates completing analysis	Date completed analysis is received by designated independent reviewer

Table 1. Date Field Definitions				
Contract Details (continued)				
Task	**Start Date**	**Completion Due Date**	**Estimated Completion Date**	**Actual Completion Date**
Independent QA/QC of Hydraulic Analyses	Date Mapping Partner begins independent review	Date Mapping Partner is scheduled to complete independent review	Date Mapping Partner anticipates completing independent review	Date all review comments have been addressed and documented by independent reviewer
Floodplain Mapping of New or Revised Analyses	Date Mapping Partner assigned to task begins work	Date Mapping Partner is scheduled to complete mapping	Date Mapping Partner anticipates completing mapping	Date completed mapping is submitted to independent reviewer
Floodplain Mapping [redelineation of effective floodplains using existing flood elevations]	Date Mapping Partner assigned to task begins redelineation	Date Mapping Partner is scheduled to complete redelineation	Date Mapping Partner anticipates completing floodplain mapping	Date completed floodplain mapping delineation has been received by independent reviewer
Floodplain Mapping [refine/establish Approximate A zones]	Date Mapping Partner begins refinement of delineation	Date Mapping Partner is scheduled to complete redelineation of Approximate A Zones	Date Mapping Partner assigned to task anticipates completing the refinement and establishment of Approximate A Zones	Date completed floodplain mapping delineation has been received by independent reviewer
Independent QA/QC of Floodplain Mapping	Date Mapping Partner begins independent review	Date Mapping Partner is scheduled to complete independent review	Date Mapping Partner anticipates completing independent review	Date all review comments have been addressed and documented by independent reviewer
Base Map Acquisition	Date Mapping Partner begins development of or requests from appropriate agency base map information	Date Mapping Partner is scheduled to receive base map	Date Mapping Partner anticipates completing or receiving base map information	Date Mapping Partner completes or receives the base map information
FIRM Production [Non-Revised Areas]	Date Mapping Partner begins development of digital database	Date Mapping Partner is scheduled to complete digital database	Date Mapping Partner anticipates producing digital FIRM	Date Mapping Partner completes production of digital FIRM
Merge Effective and Revised Information	Date Mapping Partners begins integrating revised and effective information	Date Mapping Partner is scheduled to complete merge of data	Date Mapping Partner anticipates completing integration of information	Date Mapping Partner completes integration of information
Create Preliminary FIS/FIRM	Date Mapping Partner begins creating hard copy of preliminary FIS/FIRM	Date Mapping Partner is scheduled to complete FIS/FIRM development	Date Mapping Partner anticipates submitting FIS/FIRM to FEMA representative	Date Mapping Partner actually submits preliminary FIS/FIRM to FEMA for review
Issue Preliminary FIS/FIRM	Date Mapping Partner begins preparing FIS/FIRM for mailing	Date Mapping Partner is scheduled to have FIS/FIRM ready for mailing	Date Mapping Partner anticipates stamping and sending FIS/FIRM to community	Date Mapping Partner stamps and sends information to community

Table 1. Date Field Definitions				
Contract Details (continued)				
Task	**Start Date**	**Completion Due Date**	**Estimated Completion Date**	**Actual Completion Date**
Post-Preliminary Processing	Date preliminary FIS/FIRM is received by FEMA Regional office	Date review of FIS/FIRM by FEMA Regional office and community is scheduled for completion	Date FIS/FIRM is scheduled to become effective	Date FIS/FIRM becomes effective
Post-Preliminary Information				
Task	**Date**			
Preliminary FIS/FIRM Issued	Date preliminary FIS/FIRM is stamped and sent to community			
Final Meeting Held	Date the last Community Coordinating Officer meeting is held			
90-Day Start	Date the 90-day appeal process begins			
90-Day End	Date 90 days after 90-Day Start			
All Appeals/Protests Resolved	Date letter is issued to communities indicating rejection or acceptance of appeal data for incorporation into the preliminary FIS/FIRM for inclusion in the effective FIS/FIRM			
Revised Preliminary FIS/FIRM Issued	Date revised FIS/FIRM is scheduled to go to the community			
LFD Issued	Date letter of final determination is mailed			
FIS/FIRM sent to Map Service Center	Date FIS/FIRM is sent to Map Service Center for production of effective maps			
FIS/FIRM Effective Date	Date FIS/FIRM becomes effective			

VI.5 Data Correction

All Mapping Partners are expected to ensure the quality, accuracy and integrity of the data they enter. If, during a periodic quality review of the project information, data are observed that do not meet the standards set forth in this document and cannot be accessed by the Mapping Partner conducting the review, the FEMA Lead shall be contacted to report the inconsistency. The FEMA Lead may choose to:

- Contact the MICS Lead and provide guidance on how to correct the data, or
- Correct the inconsistent data.

It is the prerogative of the FEMA Lead to ask the Mapping Partner conducting the review to contact the MICS Lead directly.

VII Level of Effort Estimates for Data Entry

The guidelines below estimate the approximate level of effort required to populate and maintain Flood Map Project data in MICS. The data entry responsibilities can be divided into three main phases: the initiation of primary MICS data, the entry and maintenance of assigned project task information, and the entry and maintenance of Post-Preliminary information. Data entry estimates[1] reflect the time required for data entry by a user of moderate experience with the MICS interface. The MICS tutorial, located at https://mics.fema.gov/mics/Tutorial/Tutorial.asp, is provided to familiarize new users with the look, feel, and functionality of the system. The level of effort for data entry and maintenance can contain many variables including the role of the user (described in Section V), the size of the project, and the number of tasks assigned to that user. Based on these variables, a total level of effort can be estimated for each step of the phases, described below.[2] The total level of effort for each of the seven steps on the Flood Map Project Overview screen is provided in Table 2.

- Initiate Flood Map Project The FEMA Lead will assign a MICS Lead to each Flood Map Project. It is the responsibility of the MICS Lead to take data entered on the Standard Data Entry Templates and initiate the project record into MICS. This level of data entry occurs once during each project.

- Enter Contract Details Each Mapping Partner may be assigned one or more Flood Mapping activities (tasks) on a project. For each task, the Start Date, Completion Due Date, Percent Complete, Estimated Completion Date, Actual Completion Date, Negotiated Cost, and Amount Spent to Date must be entered and periodically adjusted as necessary by the assigned Mapping Partner until the task is complete.

- Identify Affected Flood Insurance Studies/Post-Preliminary Schedule Typically, the MCC on a Flood Map Project will be responsible for documenting the affected FISs and FIRMs in the MICS system. This activity will take place immediately after the Flood Map Project record has been added. Additionally, the MCC shall update and maintain the Post-Preliminary production schedule for each FIS and FIRM on a monthly basis. Should there be more than one MCC assigned to a project, the task of updating the Post-Preliminary production schedule will be established at the Scoping Meeting. Note that no effort will be needed if the task status has not changed within the month.

[1] These time estimates may vary based on Internet connection speeds, desktop performance levels, and user experience.
[2] Note that the estimates provided in Table 2 are for a single Flood Map Project. Mapping Partners may be assigned several Flood Map Projects at one time.

Table 2. General Level of Effort	
Task	**Level of Effort (Minutes)**
Step 1: Initiate a Flood Map Project	5
Step 2: Record Project Scoping Information	5
Step 3: Add Mapping Partners (if Mapping Partner needs to be added to the database)	10 (per Mapping Partner)
Update Mapping Partners (if Mapping Partner is listed in the database)	2 (per Mapping Partner)
Step 4: Add Flooding Sources	10 (per Flooding Source)
Step 5: Assign Tasks to Mapping Partners	10
Update Tasks in Contract Details Screen	5 (per task per month)
Step 6: Identify Affected Countywide FIS/FIRM	5 (per FIS)
Identify Affected Single-Jurisdiction FIS/FIRM	2 (per FIS)
Step 7: Post-Preliminary Schedule	5 (per FIS/FIRM per month)

Example: an MCC is designated as the MICS Lead for a Flood Map Project that contains two flooding sources and will revise two single-jurisdiction FIRMs. Three Mapping Partners have been assigned to this project, two of which already have records in MICS. The MCC has been assigned five tasks. Table 3 shows the level of effort that may be estimated to enter the information.

Table 3. Specific Level of Effort			
Task	**Mapping Partner**	**Time (minutes)**	
		Initial Entry	**Monthly Update**
Step 1: Initiate a Flood Map Project	MICS Lead	5	
Step 2: Record Project Scoping information	MICS Lead	5	
Step 3: Assign existing Mapping Partners	MICS Lead	4	
Add a new Mapping Partner	MICS Lead	10	
Step 4: Add Flooding Sources	MICS Lead	20	
Step 5: Assign tasks to Mapping Partners	MICS Lead	10	
Update tasks in Contract Details screen	MCC, SC, CTP		25
Step 6: Identify affected FIS/FIRM	MCC	4	
Step 7: Record Post-Preliminary schedule	MCC		5
		Time required for MICS Lead initial data entry:	54
		Time required for MCC initial data entry:	4
		Initial data entry total:	**58**
		Monthly update total:	**30**

VIII Rules for Reporting Percent Complete

The following guidance is provided to ensure consistency in the reporting of percent complete statistics for Flood Map Project tasks.

- All Mapping Partners shall update the MICS database when the milestones described in Table 5 have been reached.
- All Mapping Partners shall review and update their assigned task status by month's end, regardless of whether they have reached a set milestone.

Note: Deliverables in Table 4 labeled "TSDN" indicate items that should be included in the Technical Support Data Notebook.

Table 4. Percent Complete Guidance

% Complete	Standard
	Field Survey & Reconnaissance
25	Completed field reconnaissance, including: ♦ General conditional along the floodplain(s) ♦ Types and numbers of hydraulic and/or flood-control structures ♦ Apparent maintenance status of existing hydraulic structures ♦ Location of cross sections to survey
50	Completed the majority of detailed field survey in accordance with current local and Federal guidelines, including: ♦ Obtaining channel and floodplain cross sections TSDN ♦ Identifying or establishing temporary bench marks TSDN ♦ Obtaining physical dimensions of hydraulic and flood-control structures TSDN
75	Completed detailed field survey
	Completed processing and transferring of detailed survey data to maps and drawings
100	Submitted all deliverables outlined in the CTP MAS document to other activities' responsible parties, including: ♦ A report summarizing the findings of the field reconnaissance TSDN ♦ Maps and drawings that provide the detailed survey results TSDN ♦ Survey notebook containing cross sections and structural data TSDN

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Topographic Data Development	
25	Photogrammetry: ♦ Completed aerial photography ♦ Completed aerial triangulation
	Light Detection and Radar (LIDAR): ♦ Completed data acquisition
50	Compiled current local and Federal standards and regulations pertaining to topographic data development
	Photogrammetry: ♦ Completed at least half of map compilation
	LIDAR: ♦ Completed auto post-processing ♦ Completed manual post-processing
75	Photogrammetry: ♦ Completed map compilation
	LIDAR: ♦ Completed TINs, breaklines, and DEMs
	Prepared and sent deliverables for QA/QC, including: ♦ Hardcopy topographic maps and digital work maps with contours TSDN ♦ Completed set of forms TSDN ♦ Report summarizing methodology and results TSDN ♦ Mass points and breaklines data on CD-ROM TSDN ♦ Checkpoint analyses to assess the accuracy TSDN ♦ Identification of remote-sensing data voids and methods used to supplement data voids TSDN ♦ National Geodetic Survey (NGS) data sheets for Network Control Points (NCPs) used to control remote sensing and ground surveys TSDN ♦ Metadata compliant with Federal Geographic Data Committee standards TSDN
100	Addressed all issues in QA/QC Summary Report (Independent QA/QC of Topographic Data Development Activity at 100% complete phase)
	Incorporated all QA/QC comments into deliverables
	Submitted all deliverables outlined in the CTP MAS document to other Activities' responsible parties

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Independent QA/QC of Topographic Data Development	
25	Inventoried and reviewed data submitted for completeness
	Verified that all information and forms were submitted
	Verified that data sources were based on most up-to-date available data
50	Verified topographic data is consistent with FEMA standards as well as standard engineering practices
	Verified that the topographic data are sufficient to prepare or revise the FIRM
75	Completed recording of all correspondence and monitoring issues
	Prepared Summary Report of findings
	Prepared recommendations to resolve issues found during review of submittal
	Submitted Summary Report and recommendations TSDN
100	Resolved all issues in the Summary Report
	Archived all materials, including data, analyses, and reports
Hydrologic Analysis	
25	Collected all data to be used in analysis including: ♦ All data from other activities such as field surveys and topographic data ♦ Searched archives ♦ Compiled current local and Federal standards and regulations pertaining to hydrologic modeling
50	Completed hydrologic modeling & generation of peak flood discharges for specified recurrence intervals
	Completed hydrologic modeling output analysis
	Verified compliance with all local and Federal regulations
75	Prepared and sent deliverables for QA/QC, including: ♦ Digital copies of all hydrologic modeling (input and output) files for {specify recurrence intervals of flood hazard analyses} annual chance storm events TSDN ♦ "Summary of Discharges" table(s) presenting discharge data for each flooding source TSDN ♦ Draft text for Section 3.1, Hydrologic Analyses, of FIS report TSDN ♦ Appropriate SC application/certification form for hydrology TSDN ♦ All backup data used in the analysis, including work maps TSDN ♦ If Geographic Information System (GIS)-based modeling is involved, products including all input and output data, intermediate data processing products, GIS data layers, and final products TSDN

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Hydrologic Analysis (continued)	
100	Addressed all issues in QA/QC Summary Report (Independent QA/QC of Hydrology at 100% complete phase), including: ♦ Hydrology and GIS modeling (if applicable) ♦ Data tables and FIS text
	Incorporated all QA/QC comments into deliverables
	Submitted all deliverables outlined in the MAS
Coastal Hazard Analysis	
25	Collected all data to be used in analysis, including:
	♦ All data from other Activities such as field surveys and topographic data ♦ Searched archives ♦ Compiled current local and Federal standards and regulations pertaining to coastal hazard modeling
50	Completed coastal hazard modeling, including generation of output data
	Completed coastal hazard modeling output analysis, including analysis with diagnostic tools
	Completed digital wave envelope profiles for each transect representing the 1-percent-annual-chance stillwater and wave crest elevations and ground profile conditions
	Verified compliance with all local and Federal regulations
75	Prepared and sent deliverables for QA/QC, including: ♦ Digital wave envelope profiles for each transect representing the 1-percent-annual-chance stillwater and wave crest elevations and ground profile conditions TSDN ♦ Draft text for inclusion in Section 3.1, Hydrologic Analyses of FIS report TSDN ♦ Draft work maps used for the coastal hazard analysis with each transect located accordingly TSDN ♦ Digital copies of all coastal modeling (input and output files) TSDN ♦ Copies of any other supporting computations TSDN ♦ All back-up data used in the analysis TSDN ♦ If GIS-based modeling is involved, products including all input and output data, intermediate data processing products, GIS data layers, and final products TSDN

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Coastal Hazard Analysis (continued)	
100	Addressed all issues in QA/QC Summary Report (Independent QA/QC of Coastal Hazard Analysis Activity at 100% complete phase), including: ♦ Coastal hazard and GIS modeling (if applicable) ♦ Profiles, data tables, and FIS text
	Incorporated all QA/QC comments into deliverables
	Submitted all deliverables outlined in the MAS
Independent QA/QC of Hydrologic Analysis	
25	Inventoried and reviewed data submitted for each flooding source for completeness, including: ♦ Back-up data ♦ Digital copies of hydrologic and GIS models (if applicable) ♦ Data tables, draft FIS text, methodology, and analysis
	Verified all information was submitted, including certifications and forms
	Verified data sources were based on most up-to-date available data
50	If GIS modeling was used, reviewed the: ♦ Data development process ♦ Methodology for data pre-processing of input parameters in the GIS model ♦ Calibration process ♦ Non-automated input data in coastal models
	Reviewed each flooding source's hydrologic modeling for (if not already done in the GIS model review): ♦ Use of acceptable models ♦ Use of appropriate methodology(ies) ♦ Correctly applied methodology(ies)/model(s), including QC of input parameters
	♦ Comparison with historic data, if appropriate ♦ Comparison with discharges for contiguous reaches or flooding sources
	Reviewed output for each flooding source
	Reviewed data tables and FIS text for each flooding source
	Verified compliance with all local and Federal regulations

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Independent QA/QC of Hydrologic Analysis (continued)	
75	Completed recording of all correspondence and monitoring issues
	Prepared Summary Report of findings
	Prepared recommendations to resolve issues identified during review of submittal
	Submitted Summary Report and recommendations TSDN
100	Resolved all issues in the Summary Report
	Archived all materials, including data, analyses, and reports
Independent QA/QC of Coastal Hazard Analysis	
25	Inventoried and reviewed data submitted for each flooding source for completeness, including: ♦ Back-up data ♦ Digital copies of coastal and GIS models (if applicable) ♦ Profiles, data tables, draft FIS text, methodology, and analysis
	Verified all information was submitted, including certifications and forms
	Verified data sources were based on most up-to-date available data
50	If GIS modeling was used, reviewed the: ♦ Data development process ♦ Methodology for data pre-processing of input parameters in the GIS model ♦ Calibration process ♦ Non-automated input data in coastal models
	Reviewed each flooding source's coastal modeling for (if not already done in the GIS model review): ♦ Use of acceptable models ♦ Use of appropriate methodology(ies) ♦ Correctly applied methodology(ies)/model(s), including QC of input parameters ♦ Comparison with historic data, if appropriate ♦ Comparison with discharges for contiguous reaches or flooding sources
	Reviewed output for each flooding source
	Reviewed profiles, data tables, and FIS text for each flooding source
	Verified compliance with all local and Federal regulations

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Independent QA/QC of Coastal Hazard Analysis (continued)	
75	Completed recording all correspondence and monitoring issues
	Prepared Summary Report of findings
	Prepared recommendations to resolve issues identified during review of submittal
	Submitted Summary Report and recommendations TSDN
100	Resolved all issues in the Summary Report
	Archived all materials, including data, analyses, and reports
Hydraulic Analysis	
25	Collected all data to be used in analysis, including: ♦ All data from other activities, such as field surveys and topographic surveys ♦ Searched archives ♦ Compiled current local and Federal standards and regulations pertaining to hydraulic modeling
50	Completed hydraulic modeling, including generation of output data
	Completed hydraulic modeling output analysis, including analysis with CHECK-2/CHECK-RAS or other similar diagnostic tools
	Completed digital profiles for the 10-, 2-, 1-, and 0.2-percent annual chance floodplains
	Completed floodway modeling
	Verified compliance with all local and Federal regulations
75	Prepared and sent deliverables for QA/QC, including: ♦ Table of Manning's "n" values TSDN ♦ Profiles TSDN ♦ Floodway data tables TSDN ♦ Draft of Section 3.2 of FIS report TSDN ♦ Digital copies of the hydraulic modeling and analyses TSDN ♦ Explanation of each unsolved CHECK-2/CHECK-RAS issue TSDN ♦ If GIS-based modeling is involved, products including all input and output data, intermediate data processing products, GIS data layers, and final products TSDN
100	Addressed all issues in QA/QC Summary Report (Independent QA/QC of Hydraulic Analysis Activity at 100% complete phase), including: ♦ Hydraulic and GIS modeling (if applicable) ♦ Profiles, data tables, and FIS text
	Incorporated all QA/QC comments into deliverables
	Submitted all deliverables outlined in the MAS

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Independent QA/QC Review of Hydraulic Analysis	
25	Inventoried and reviewed data submitted for each flooding source for completeness, including: ♦ Back-up data ♦ Digital copies of hydraulic and GIS models (if applicable) ♦ Profiles, data tables, Manning's "n" values table, draft FIS text, methodology, and analysis using CHECK-2/CHECK-RAS
	Verified all information was submitted, including certifications and forms
	Verified that data sources were based on most up-to-date available data
50	If GIS modeling was used, reviewed the: ♦ Data development process ♦ Methodology for data pre-processing of input parameters in the GIS model ♦ Floodway analysis ♦ Calibration process ♦ Non-automated input data in hydraulic models
	Reviewed each flooding source's hydraulic modeling for (if not already done in the GIS model review): ♦ Starting water elevations ♦ Cross-section geometry ♦ Manning's "n" values ♦ Bridge and culvert modeling ♦ Discharge values ♦ Floodway analysis ♦ Tie-in to upstream and downstream non-revised profiles
	Reviewed CHECK-2/CHECK-RAS analysis for each flooding source
	Reviewed profiles, data tables, and FIS text for each flooding source
	Verified compliance with all local and Federal regulations
75	Completed recording all correspondence and monitoring issues
	Prepared Summary Report of findings
	Prepared recommendations to resolve issues identified during review of submittal TSDN
	Submitted Summary Report and recommendations
100	Resolved all issues in the Summary Report
	Archived all materials, including data, analyses, and reports

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Floodplain Mapping (Detailed Riverine & Coastal Analysis)	
25	Collected all data to be used in mapping production, including: ♦ All data from other Activities such as hydraulic modeling, QA/QC report, topographic data, and work maps with floodplain delineations (digital and/or hard copy) ♦ Archived Letters of Map Change (LOMCs) issued since effective FIS report ♦ Compiled current local and Federal standards and regulations pertaining to floodplain mapping
	Completed limited internal QA/QC of hydraulic modeling
	Finalized flood profiles
50	Completed delineation of the digital floodplain for the 1-percent and 0.2-percent recurrence intervals and regulatory floodway boundaries, including: ♦ Incorporation of all effective LOMCs ♦ Incorporation of base map features
75	Completed delineation of the digital floodplain for the 1-percent and 0.2-percent recurrence intervals and regulatory floodway boundaries
	Completed internal QA/QC of draft FIRMs and resolved all discrepancies
	Prepared and sent deliverables for QA/QC, including: ♦ Digital work maps with the 1-percent and 0.2-percent annual chance floodplain boundary delineations, regulatory floodway boundary delineations, cross sections, Base Flood Elevations (BFEs), zone designation labels, and all applicable base map features ♦ For coastal areas, digital work maps with Coastal High Hazard Area (V Zone) boundary delineations along flooding source shorelines, transect locations, BFEs, zone designation labels, and all applicable base map features TSDN ♦ If existing topography is used, an explanation for the selection of an existing topographic map TSDN ♦ Digital FIRM mapping files, in one of the GIS file and database formats specified in FEMA's Guidelines and Specifications for Flood Hazard Mapping Partners (G&S) TSDN ♦ Metadata files describing the Digital FIRM data, including the required information shown in the examples in the G&S TSDN ♦ Complete set of plots of the FIRM panels showing all detailed flood hazard information at a suitable scale TSDN ♦ A QA/QC report that includes a description and the results of all automated or manual QA/QC steps taken during the preparation of the FIRM TSDN ♦ Any back-up or supplemental information used in the mapping required for the independent QA/QC review TSDN
100	Addressed all issues in QA/QC Summary Report (Independent QA/QC of Floodplain Mapping Activity at 100% complete phase)
	Incorporated all QA/QC comments into deliverables
	Submitted all deliverables outlined in the CTP MAS document to other activities' responsible parties

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Floodplain Mapping (Redelineation Using Effective Profiles and Updated Topographic Data)	
25	Collected all data to be used in mapping production, including: ♦ All data from other Activities such as effective flood profiles, topographic data, and base maps ♦ Searched archives, including all effective LOMCs ♦ Compiled current local and Federal standards and regulations pertaining to floodplain mapping
	Evaluated and determined the new topographic data do reflect the same hydraulic characteristics as the effective study and do not invalidate the floodplain and regulatory floodway boundary delineations
50	Completed delineation of the digital floodplain for the 1-percent and 0.2-percent recurrence intervals and regulatory floodway boundaries using flood profiles and floodway data tables from effective FIS report, including: ♦ Incorporation of all effective LOMCs ♦ Fitted delineations to base maps
75	Completed internal QA/QC and resolved all discrepancies
	Prepared and sent deliverables for QA/QC, including: ♦ Digital work maps with the 1-percent and 0.2-percent annual chance floodplain boundary delineations, regulatory floodway boundary delineations, cross sections, BFEs, zone designation labels, and all applicable base map features TSDN ♦ For coastal areas, digital work maps with Coastal High Hazard Area (V Zone) boundary delineations along flooding source shorelines, transect locations, BFEs, zone designation labels, and all applicable base map features TSDN ♦ Digital FIRM mapping files, in one of the GIS file and database formats specified in the G&S TSDN ♦ Metadata files describing the Digital FIRM data, including the required information shown in the examples in the G&S TSDN ♦ Complete set of plots of the FIRM panels, showing all detailed flood hazard information at a suitable scale TSDN ♦ A QA/QC report that includes a description and the results of all automated or manual QA/QC steps taken during the preparation of the FIRM TSDN ♦ Any back-up or supplemental information used in the mapping required for the independent QA/QC review TSDN
100	Addressed all issues in QA/QC Summary Report (Independent QA/QC of Floodplain Mapping Activity at 100% complete phase)
	Incorporated all QA/QC comments into deliverables
	Submitted all deliverables outlined in the CTP MAS document to other Activities' responsible parties

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Floodplain Mapping (Refinement or Creation of Zone A)	
25	Compiled all data to be used in approximate analyses and mapping production, including: ♦ All hydrologic and field survey data ♦ Topographic data
	Compiled current Federal standards and regulations pertaining to Approximate Zone A analyses and floodplain mapping
	Identified methodology to be used in Approximate Zone A analyses
50	Completed Approximate Zone A analyses, including floodplain boundary determinations
	Completed delineation of the 1-percent annual chance floodplain boundaries on digital work maps
75	Completed internal QA/QC and resolved all discrepancies
	Prepared and sent deliverables for QA/QC, including: ♦ Digital work maps with the 1-percent annual chance floodplain boundary delineations, cross sections (where approximate flood elevations were computed), zone designation labels, and all applicable base map features TSDN ♦ If existing topography is used, an explanation for the selection of an existing topographic map TSDN ♦ Digital FIRM mapping files, in one of the GIS file and database formats specified in the G&S TSDN ♦ Metadata files describing the Digital FIRM data, including the required information shown in the examples in the G&S TSDN ♦ Complete set of plots of the FIRM panels showing all detailed flood hazard information at a suitable scale TSDN ♦ A QA/QC report that includes a description and the results of all automated or manual QA/QC steps taken during the preparation of the Digital FIRM TSDN ♦ Any back-up or supplemental information used in the mapping required for the independent QA/QC review TSDN
100	Addressed all issues in QA/QC Summary Report (Independent QA/QC of Floodplain Mapping Activity at 100% complete phase)
	Incorporated all QA/QC comments into deliverables
	Submitted all deliverables outlined in the MAS
Independent QA/QC of Floodplain Mapping	
25	Inventoried and reviewed data submitted for each flooding source for completeness, including: ♦ Back-up data, effective information such as FIS report ♦ Digital FIRM digital files, metadata, and printed plots ♦ Internal QA/QC, discrepancy reports
	Verified all information, including certifications and forms, was submitted

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Independent QA/QC of Floodplain Mapping (continued)	
50	Reviewed the floodplain work maps to ensure that the results of the hydraulic analyses were accurately represented, including: ♦ Reviewed the cross sections for proper location and orientation on the work map and agreement with the Floodway Data table (FDT) ♦ Reviewed the BFEs shown on the work map for proper location and agreement with the results of the hydraulic modeling
	♦ Reviewed the regulatory floodway widths for agreement with the widths shown in the FDT and the results of the hydraulic modeling
	♦ Reviewed the floodplain boundaries for agreement with the flood elevations shown in the FDT and the contour lines and other topographic information shown on the work maps ♦ Verified that floodplain widths at cross sections matched FDT and floodplain boundaries as shown on work maps matched profiles
	♦ For coastal studies, reviewed the wave setup and runup height elevations shown on the work map for agreement with those shown on the data table(s) and checked whether the stillwater elevations were shown where coastal and riverine flooding studied by detailed methods join ♦ Ensured zone designations were indicated properly ♦ Ensured Digital FIRM mapping files are in one of the GIS file and database formats specified in the G&S and conform to those specifications for content and attribution ♦ Ensured metadata files describing the Digital FIRM data include the required information and follow the examples shown in the G&S
	Verified compliance with all local and Federal regulations
75	Completed recording all correspondence and monitoring issues
	Prepared Summary Report of findings
	Prepared recommendations to resolve issues found during review of submittal
	Submitted Summary Report and recommendations TSDN
100	Resolved all issues in the Summary Report
	Archived all materials, including data, analyses, and reports
Base Map Acquisition and Preparation	
25	Collected all data to be used in analysis, including: ♦ Digital files (raster or vector) of the base map ♦ Searched archives ♦ Compiled current Federal standards and regulations pertaining to base map preparation
50	Secured necessary permissions from the map source to allow FEMA's use and distribution of hardcopy and digital products using the digital base map, free of charge
	Certified that the digital data meet the minimum standards and specifications that FEMA requires for Digital FIRM production

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Base Map Acquisition and Preparation (continued)	
75	Populated the Digital FIRM database for base map features and applicable data
	Completed internal QA/QC of Base Map preparation
100	Submitted all deliverables outlined in the MAS, including ♦ Digital files of the base map TSDN ♦ Written certification that digital data meet the minimum FEMA standards and specifications TSDN ♦ Documentation that FEMA can use the digital base map TSDN
Digital FIRM Production (Non-Revised Areas)	
25	Collected all data to be used in analysis, including: ♦ All effective FIRM and Flood Boundary/Floodway Map (FBFM) panels ♦ Base map files ♦ All LOMCs
	Compiled current Federal standards and regulations pertaining to FIRM preparation
50	Completed digitizing FIRM panels showing all non-revised flood hazard information taken from the effective FIRMs and FBFMs, including: ♦ Incorporating all LOMCs issued by FEMA since the current effective FIRM for each affected community
	Completed internal QA/QC of Digital FIRM product
75	Prepared and sent deliverables for QA/QC, including: ♦ Digital FIRM mapping files, in one of the GIS file and database formats specified in the G&S TSDN ♦ Metadata files describing the Digital FIRM data, including the required information shown in the examples in the G&S TSDN ♦ Complete set of plots of the Digital FIRM panels showing all unrevised flood hazard information taken from the effective FIRMs and FBFMs at a suitable scale TSDN ♦ A QA/QC report that includes a description and the results of all automated or manual quality assurance steps taken during the preparation of the Digital FIRMs, including a check that the road and floodplain relationship is maintained for all unrevised areas TSDN
100	Addressed all issues in QA/QC Summary Report (Independent QA/QC Review of Digital FIRM Production (Non-Revised Areas) at 100% complete phase)
	Incorporated all QA/QC comments into deliverables
	Submitted all deliverables outlined in the MAS

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Independent QA/QC of Digital FIRM Production (Non-Revised Areas)	
25	Inventoried and reviewed data submitted for each flooding source for completeness, including: ♦ Back-up data, effective information such as FIRM/FBFM panels, and FIS report ♦ Digital FIRM digital files, metadata, and printed plots ♦ Internal QA/QC, discrepancy reports
	Verified all information, including certifications and forms, were submitted
50	Reviewed Digital FIRM panel preparation of non-revised areas to ensure that the unrevised flood hazard information taken from the effective FIRM and FBFM panels was accurately represented, including:
	♦ Unrevised flood hazard information shown on the effective FIRM and FBFM panels is completely and accurately captured in the digital files
	♦ The floodway widths agree with the widths shown in the FDT(s) and the results of the hydraulic modeling, within a tolerance of 5 percent ♦ The distances between cross sections agree with the distances shown in the FDT(s) and the results of the hydraulic modeling, within a tolerance of 5 percent ♦ Road and floodplain relationships are maintained for all unrevised areas ♦ Digital FIRM mapping files are in one of the GIS file and database formats specified in the G&S and conform to those specifications for content and attribution ♦ Metadata files describing the Digital FIRM data include the required information and follow the examples shown in the G&S
	Verified compliance with all local and Federal regulations
75	Completed recording all correspondence and monitoring issues
	Prepared Summary Report of findings
	Prepared recommendations to resolve issues found during review of submittal
	Submitted Summary Report and recommendations TSDN
100	Resolved all issues in the Summary Report
	Archived all materials, including data, analyses, and reports
Merging of Revised and Non-Revised Information	
25	Collected all data including digital files (raster or vector) of the non-revised and revised flooding sources and floodplains
	Compiled current Federal standards and regulations pertaining to Digital FIRM preparation
50	Tied in revised 1-percent annual chance flood hazard information with contiguous communities that were not studied
	Tied in revised and non-revised flood profiles

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Merging of Revised and Non-Revised Information (continued)	
75	Completed merging revised and non-revised FIRM information, including ♦ Floodplain boundaries ♦ Regulatory floodway boundaries
	Internal QA/QC of merged flood hazard information completed
100	Submitted all deliverables outlined in the MAS, including: ♦ Digital work maps, with 1-percent-annual-chance floodplain boundary delineations, cross sections, BFEs, zone designation labels, and all applicable base map features shown TSDN ♦ Digital FIRM mapping files, in one of the GIS file and database formats specified in the G&S TSDN ♦ Metadata files describing the Digital FIRM data, including the required information shown in the examples in the G&S TSDN ♦ Complete set of plots of Digital FIRM panels showing all detailed flood hazard information at a suitable scale TSDN ♦ A QA/QC report that includes a description and the results of all automated or manual QA/QC steps taken during the preparation of the Digital FIRM TSDN
Application of G&S Digital FIRM Graphic Specifications	
25	Collected all data and Digital FIRM files to be used in this Activity
	Compiled current Federal standards and regulations pertaining to Digital FIRM preparation
50	Added all required graphic attributes to the Digital FIRM files, including: ♦ Annotations ♦ Line patterns ♦ Area shading ♦ Map collar information
	Completed internal QA/QC of Digital FIRM preparation
75	Prepared and sent deliverables for QA/QC, including: ♦ Digital FIRM mapping files in one of the GIS file and database formats specified in the G&S TSDN ♦ Digital FIRM database files in one of the database formats specified in the G&S TSDN ♦ Metadata files describing the Digital FIRM data including the required information based on the examples shown in the G&S TSDN ♦ Complete set of plots of the Digital FIRM panels showing all the details at the scale(s) agreed upon in the "Scope of Project" TSDN ♦ A QA/QC report that includes a description and the results of all automated or manual quality assurance steps taken during the preparation of the Digital FIRM TSDN

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Application of G&S Digital FIRM Graphic Specifications (continued)	
100	Addressed all issues in QA/QC Summary Report (Independent QA/QC Review of Digital FIRM Graphics at 100% complete phase)
	Incorporated all QA/QC comments into deliverables
	Submitted all deliverables outlined in the MAS
Independent QA/QC of FIRM Graphics	
25	Inventoried and reviewed data submitted for each flooding source for completeness, including: ♦ Back-up data
	♦ Digital FIRM and metadata files, Digital FIRM database, and printed plots
	♦ Internal QA/QC, discrepancy reports
	Verified all information, including certifications and forms, was submitted
50	Reviewed FIRM panel preparation to ensure that the panels conform to FEMA's FIRM graphic standards in the G&S, including: ♦ All required FIRM features are accurately and legibly labeled and follow the examples shown in the G&S; this includes all flood hazard zones, BFEs, cross sections, coastal transects, studied streams, mapped political entities, and all roads within and adjacent to the 1-percent-annual-chance flood hazard areas ♦ All FIRM features are correctly symbolized with the appropriate symbol, line pattern, or area shading and follow the examples provided ♦ All map collar information is complete, correct, and follows the examples provided ♦ Digital FIRM mapping and database files are in one of the specified GIS file and database formats and conform to those specifications for content and attribution ♦ Metadata files describing the Digital FIRM data include the required information and follow the examples provided
	Verified compliance with all Federal regulations
75	Completed recording all correspondence and monitoring issues
	Prepared Summary Report of findings
	Prepared recommendations to resolve issues found during review of submittal
	Submitted Summary Report and recommendations TSDN
100	Resolved all issues in the Summary Report
	Archived all materials, including data, analyses, and reports

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Preparation and Issuance of Preliminary FIS and FIRM	
25	Collected all information to be used for issuance of preliminary FIS and FIRMs, including: ♦ All data from other Activities such as preliminary Digital FIRM files, revised FIS report sections, and BFEs ♦ Existing FIS report
	Created distribution list of affected communities, state agencies, and others identified by FEMA
50	Prepared FIS report
	Completed internal QA/QC of FIS report, including data tables and flood profiles and resolved discrepancies
	Completed internal QA/QC of FIRMs and resolved discrepancies
	Incorporated all QA/QC comments
75	Prepared QA/QC report
	Printed preliminary FIRMs and FIS reports for distribution
	Prepared preliminary transmittal letter
	Prepared the News Release notification of BFE changes
	Published the News Release(s) in local newspapers with each affected community following a 30-day community comment period
	Submitted Federal Register Notice
100	Submitted all deliverables outlined in the MAS document to the Chief Executive Officer of each community, the State National Flood Insurance Program Coordinator, the FEMA Regional office, and others as directed by FEMA, including: ♦ Preliminary transmittal letter ♦ Set of printed preliminary FIRMs and FIS reports ♦ Digital FIRM files ♦ Digital FIRM database files ♦ Metadata files describing the Digital FIRM data ♦ QA/QC report ♦ Documents showing that the news release(s) was published in local newspapers and in the Federal Register in accordance with FEMA regulations

Table 4. Percent Complete Guidance	
% Complete	**Standard**
Post-Preliminary Processing	
25	Participated in public meetings
50	Resolved all appeals and protests received during the 90-day public comment period, including: ♦ Performing technical reviews and preparing proposed resolutions for FEMA ♦ Attending community meetings to assist FEMA in resolving any appeals
75	All comments received during the 90-day appeal period are reviewed and responses prepared for FEMA's review
	All FEMA authorized responses are mailed
	Revised FIRMs and FIS Report, including all data tables and flood profiles
	Mailed all revised preliminary FIRMs and associated correspondence
100	Prepared Letter of Final Determination, including effective date for the FIRM and FIS report
	Prepared final notice for publication in the Federal Register
	Prepared Government Processing Office Package, including: ♦ Final FIRMs, including camera-ready negative film ♦ FIS report, including data tables and flood profiles ♦ Transmittal letter to Chief Executive Officers ♦ Printing requisition form ♦ Community map action form
	Delivered final materials and paperwork to FEMA
	Prepared all back-up data and correspondence and transmitted to the Engineering Study Data Package facility

IX Standard Data Entry Templates

The following data entry templates for MICS project initiation and maintenance are provided to ensure consistent data entry. The templates are to be completed at each Project Scoping Meeting by the MICS Lead. If no Project Scoping Meeting is held, it is the responsibility of the MICS Lead to compile the template information for entry into MICS. For more information on the Project Scoping process or to download the template, please refer to Appendix I of the Guidelines and Specifications for Flood Hazard Mapping Partners, available on the FEMA Web site at http://www.fema.gov/mit/tsd/gs_main.htm.

Date: _____

Project Name: _____

FEMA Lead: _____

Project Summary:

_____

_____

Mapping Partners	Project Role/Entity Type (circle one)	MICS Lead
	MCC / Study Contractor / CTP	☐
	MCC / Study Contractor / CTP	☐
	MCC / Study Contractor / CTP	☐
	MCC / Study Contractor / CTP	☐

Flooding Sources

Name of Flooding Source: _____

Type (check one):

☐ Detailed Riverine ☐ Approximate Riverine

☐ Coastal ☐ Floodplain Redelineation

☐ Limited Detail ☐ Alluvial Fan

☐ Lacustrine ☐ Other Type: _____

Miles/Square Miles: _____

Downstream Starting Point – Upstream Ending Point –

Latitude: _____ Latitude: _____

Longitude: _____ Longitude: _____

Please check the boxes below if this flooding source includes levees or unusual floodway situations

☐ Levees (please document non-compliance with Section 65.10 of the National Flood Insurance Program Regulations in the Comments section below)

☐ Floodway (please document any unusual floodway analysis or mapping issues in the Comments section below)

Hydrologic Model/Method Used:

Hydraulic Model/Method Used:

Coastal Model/Method Used:

Topographic Data Source:

Cross Section/Transect Source:

Comments:

Flood Mapping Activities (Tasks)	Mapping Partner(s)
Field Surveys and Reconnaissance	
Topographic Data Development	
Independent QA/QC of Topographic Data	
Hydrologic Analyses	
Independent QA/QC of Hydrologic Analyses	
Coastal Hazard Analyses	
Independent QA/QC of Coastal Hazard Analyses	
Hydraulic Analyses	
Independent QA/QC of Hydraulic Analyses	
Floodplain Mapping of New or Revised Analyses	
Floodplain Mapping (redelineation of effective floodplains using existing flood elevations)	
Floodplain Mapping (Refine/Establish Approximate A Zones)	
Independent QA/QC of Floodplain Mapping	
Base Map Acquisition	
FIRM Production (Non-Revised areas)	
Merge Effective and Revised Information	
Create Preliminary FIS/FIRM	
Issue Preliminary FIS/FIRM	
Post-Preliminary Processing	

Counties/Communities:

County-wide:

1) County Name: _____

FIPS code (if available): _____

Affected Communities:

All Communities in County ☐

Restudy of the following Communities ☐

Community Name	CID

2) County Name: _____

FIPS code (if available): _____

Affected Communities:

All Communities in County ☐

Restudy of the following Communities ☐

Community Name	CID

Single Jurisdiction:

1) Community Name: _____

   CID (if available): _____

2) Community Name: _____

   CID (if available): _____

3) Community Name: _____

   CID (if available): _____

4) Community Name: _____

   CID (if available): _____

X Memorandum of Agreement for the Use of MICS

A Memorandum of Agreement should be signed and agreed upon by FEMA and all Mapping Partners before a Flood Map Project begins. This agreement shall underscore the importance of using MICS to track the lifecycle of the project and ensure that all Mapping Partners understand their MICS responsibilities. A sample Memorandum of Agreement is shown below.

Federal Emergency Management Agency
Mapping Partners
Memorandum of Agreement for the Use of MICS

AGREEMENT is made on {Insert Date}, by these parties: {Insert name(s) of community and/or partner(s)} and the Federal Emergency Management Agency (FEMA).

BECAUSE MICS is the official FEMA system used to track all Flood Map Projects and its proper use, in accordance with the usage guidelines specified in Appendix N of the Guidelines and Specifications, is essential to the management of all Flood Map Projects.

BECAUSE a critical component of this program is the accurate and timely accounting of all project funds and tasks through MICS as assigned by FEMA.

BECAUSE MICS contains sensitive and confidential costing information, thus user administration must be maintained properly.

THEREFORE, proper initiation of a Flood Map Project into the MICS system is essential. The designated MICS Lead will enter the primary project information into MICS in a timely manner. Additionally, the MICS Lead will maintain and manage the primary project data throughout the duration of the project.

NOW, THEREFORE, each Mapping Partner's primary contact will be responsible for maintaining their organization's user administration to ensure data security.

NOW, THEREFORE, it is mutually agreed that the parties who enter into this agreement will work together to fully and properly use the MICS system.

NOW, THEREFORE, if the data in MICS are not entered and maintained properly by any partner, the negligent party will not be in compliance with their assigned responsibilities and will be in default of their contract; thus, payment for services may be withheld.

		MICS Lead
_____	_____	☐
Community Authorized Representative	date	
_____	_____	☐
FEMA Authorized Representative	date	
_____	_____	☐
State Representative	date	
_____	_____	☐
Other Mapping Partner	date	
_____	_____	☐
Other Mapping Partner	date	
_____	_____	☐
Other Mapping Partner	date	

(Note that in States where statutory and/or regulatory requirements require the State's review and/or approval of new flood hazard data, the State will be a signatory to a community's agreement.)

XI MICS Permissions

Within each MICS record, permission to write, view, access, and execute individual objects is controlled by detailed permissions protocols. As referenced earlier, the MICS permissions are set up in a three-tiered framework with associated access and execution rights (Figure 13).

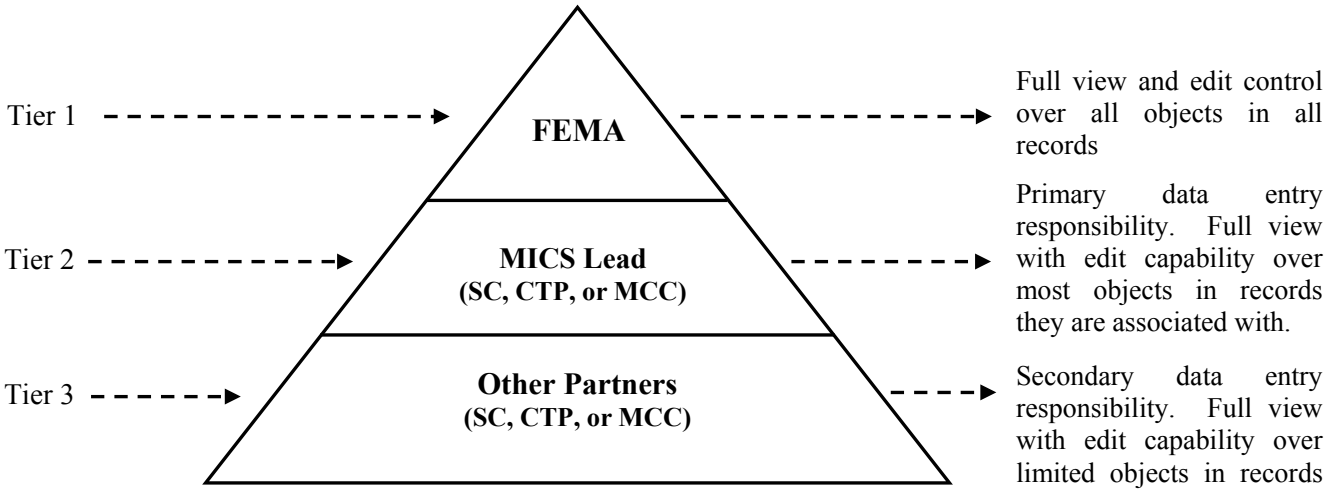


Figure 15. MICS Three-Tiered Permissions

MICS permissions are assigned on an object level, and each object has primary and secondary permission levels. As noted in Section VI, the MICS Lead may be an MCC, an SC, or a CTP. Primary permissions are assigned to the MICS Lead, and secondary permissions are assigned to all other Mapping Partners associated with a given record. Table 5 is the "Permissions Matrix" and shows the following codes:

- **I**nvisible — Users cannot see the specified object.
- **D**isabled — Hyperlinks and controls such as drop-down lists, buttons, or check boxes are visible but do not respond to input from users with this level of permission.
- **V**iew Only — Users can see but cannot edit these objects, typically text boxes. The object will be grayed out and will not permit data entry.
- **W**rite — Users can see and edit (write to) the specified object.
- **E**nabled — Hyperlinks and controls will respond to commands from users with this level of permission.

In addition to the permissions outlined above, certain fields, buttons, and hyperlinks will carry contingent permissions. On the Permissions Matrix, contingent Write or Enable permissions are shown with the codes W(c) and E(c). This is required to enable Mapping Partners to view or edit information that they are directly associated with, while prohibiting them from viewing, editing, or accessing other partners' information.

Table 5. Permissions Matrix								
Screen Name	**Name**	**Object Type**	**MCC**		**CTP**		**SC**	
			Primary	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**
Flood Map Project Overview	**Initiate a Flood Map Project**							
	Project Name	text box	W	V	W	V	W	V
	Project Summary	text box	W	V	W	V	W	V
	Project Status	radio button	E	D	E	D	E	D
	FEMA Lead	text box	W	V	W	V	W	V
	MICS Lead	drop down	E	D	E	D	E	D
	State Selection	list box	E	V	E	V	E	V
	Save Changes	button	E	I	E	I	E	I
	Record Project Scoping Information							
	Project Scoping Summary	hyperlink	E	E	E	E	E	E
	Add Mapping Partners							
	Remove Selected Mapping Partners from Project	button	I	I	I	I	I	I
	Add Mapping Partner to Project	button	E	I	E	I	E	I
	Mapping Partner Name	hyperlink	E	E	E	E	E	E
	Contract Details	hyperlink	E	E	E	E	E	E
	Add Flooding Sources							
	Remove Selected Flooding Sources from Project	button	E	I	E	I	E	I
	Add Flooding Source to Project	button	E	I	E	I	E	I
	Flooding Source Name	hyperlink	E	E	E	E	E	E
	Assign Tasks to Mapping Partners							
	Summary of Flood Mapping Tasks (Activities)	hyperlink	E	E	E	E	E	E
	Identify Affected Flood Insurance Studies							
	Remove Selected FISs from Project	button	E	E	I	I	I	I
	Add Countywide FIS/FIRM	button	E	E	I	I	I	I
	Add Single-Jurisdiction FIS/FIRM	button	E	E	I	I	I	I
	Details	hyperlink	E	E	E	E	E	E
	CID/FIPS *(Countywide only)*	hyperlink	E	E	E	E	E	E
	Establish Post-Preliminary Production Schedule							
	Post-Preliminary Status Summary	hyperlink	E	E	E	E	E	E
	Related Links							
	Base Map Information	hyperlink	E	E	E	E	E	E
	Vertical Datum Information	hyperlink	E	E	E	E	E	E

Table 5. Permissions Matrix								
Screen Name	**Name**	**Object Type**	**MCC**		**CTP**		**SC**	
			Primary	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**
Add Mapping Partner & Mapping Partner Details	Name	text box	W	W (c)	W	W (c)	W	W (c)
	Address	text box	W	W (c)	W	W (c)	W	W (c)
	City	text box	W	W (c)	W	W (c)	W	W (c)
	State	text box	W	W (c)	W	W (c)	W	W (c)
	Zip Code	text box	W	W (c)	W	W (c)	W	W (c)
	Telephone	text box	W	W (c)	W	W (c)	W	W (c)
	Fax	text box	W	W (c)	W	W (c)	W	W (c)
	Contact							
	Name	text box	W	W (c)	W	W (c)	W	W (c)
	Telephone	text box	W	W (c)	W	W (c)	W	W (c)
	Fax	text box	W	W (c)	W	W (c)	W	W (c)
	Email	text box	W	W (c)	W	W (c)	W	W (c)
	Pager #	text box	W	W (c)	W	W (c)	W	W (c)
	Mobile #	text box	W	W (c)	W	W (c)	W	W (c)
	Notes	text box	W	W (c)	W	W (c)	W	W (c)
	Save Changes	button	E	E (c)	E	E (c)	E (c)	E (c)
	Cancel Changes	button	E	E (c)	E	E (c)	E (c)	E (c)
	Delete Mapping Partner from MICS	button	I	I	I	I	I	I
Contract Details	**Contract Information**							
	Mapping Partner Name	hyperlink	E	E	E	E	E	E
	Partner Type	drop down	E	E	E	E	E	E
	Contract Agreement Type	drop down	E	E	E	E	E	E
	Contract #	text box	W	W	W	W	W	W
	CTP Contribution Amount	text box	I	I	W	W	I	I
	Notes	text box	W	W	W	W	W	W
	Add New/Delete Task Order							
	Task Order	text box	W	W	W	W	W	W
	Date Issued/Signed	text box	W	W	W	W	W	W
	Delete Task Order(s)	button	E	E	E	E	E	E
	Change Task Order(s)	button	E	E	E	E	E	E

Table 5. Permissions Matrix								
Screen Name	**Name**	**Object Type**	**MCC**		**CTP**		**SC**	
			Primary	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**
Contract Details (Continues)	Add Task Order	button	E	E	E	E	E	E
	Tasks Assigned							
	Task Order	drop down	E	E	E	E	E	E
	Start Date	text box	W	W	W	W	W	W
	Completion Due Date	text box	W	V	W	V	W	V
	Percent Complete	text box	W	W	W	W	W	W
	Estimated Completion Date	text box	W	W	W	W	W	W
	Actual Completion Date	text box	W	W	W	W	W	W
	Negotiated Cost	text box	W	W	W	W	W	W
	Amount Spent to Date	text box	W	W	W	W	W	W
	Comments	text box	W	W	W	W	W	W
	Save Changes	button	E	E	E	E	E	E
	Cancel All Changes	button	E	E	E	E	E	E
Correspondence Tracker *	Date of Contact	text box	W	W	W	W	W	W
	Person Contacted	text box	W	W	W	W	W	W
	Contacted by	text box	W	W	W	W	W	W
	Notes	text box	W	W	W	W	W	W
	Save Changes	button	E	E	E	E	E	E
	Cancel Changes	button	E	E	E	E	E	E
Flooding Source Details	Name of Flooding Source	text box	W	V	W	V	W	V
	Type	drop down	E	D	E	D	E	D
	Miles/Square Miles	text box	W	V	W	V	W	V
	Downstream Latitude	text box	W	V	W	V	W	V
	Downstream Longitude	text box	W	V	W	V	W	V
	Upstream Latitude	text box	W	V	W	V	W	V
	Upstream Longitude	text box	W	V	W	V	W	V
	Levees	check box	E	V	E	V	E	V

Table 5. Permissions Matrix								
Screen Name	**Name**	**Object Type**	**MCC**		**CTP**		**SC**	
			Primary	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**
Flooding Source Details (continued)	Floodway	check box	E	V	E	V	E	V
	Hydrologic Model/Method Used	text box	W	V	W	V	W	V
	Hydraulic Model/Method Used	text box	W	V	W	V	W	V
	Coastal Model/Method Used	text box	W	V	W	V	W	V
	Topographic Data Source	text box	W	V	W	V	W	V
	Cross Section/Transect Source	text box	W	V	W	V	W	V
	Comments	text box	W	W	W	W	W	W
	Save Changes	button	E	E	E	E	E	E
	Cancel Changes	button	E	E	E	E	E	E
Summary of Flood Mapping Tasks (Activities)	**Mapping Tasks**							
	Project Tasks (for all tasks)	hyperlink	E(c)	E(c)	E(c)	E(c)	E(c)	E(c)
	Mapping Partner name (for all tasks)	drop down	E	D	E	D	E	D
	Percent Complete (for all tasks)	hyperlink	E(c)	E(c)	E(c)	E(c)	E(c)	E(c)
	Completion Due Date (for all tasks)	hyperlink	E(c)	E(c)	E(c)	E(c)	E(c)	E(c)
	Actual Completion (for all tasks)	hyperlink	E(c)	E(c)	E(c)	E(c)	E(c)	E(c)
	Negotiated Cost (for all tasks)	hyperlink	E(c)	E(c)	E(c)	E(c)	E(c)	E(c)
	Amount Spent to Date (for all tasks)	hyperlink	E(c)	E(c)	E(c)	E(c)	E(c)	E(c)
	Save Changes	button	E	I	E	I	E	I
	Split a task (for all tasks)	button	E	I	E	I	E	I
	Clear a task (for all tasks)	button	E	I	E	I	E	I
	Approve All	button	I	I	I	I	I	I
	Approval Boxes	check box	V (c)	V (c)	V (c)	V (c)	V (c)	V (c)
	New Tasks							
	Task Name	text box	W	V	W	V	W	V
	Add New Task	button	E	I	E	I	E	I
	Project Cost							
	Other Contribution	text box	I	I	I	I	I	I
	Save Costs	button	I	I	I	I	I	I
Project Diary	Add New	button	E	E	E	E	E	E
	Save	button	E	E	E	E	E	E
	Note	text box	W	W	W	W	W	W

Table 5. Permissions Matrix								
Screen Name	**Name**	**Object Type**	**MCC**		**CTP**		**SC**	
			Primary	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**
Miscellaneous	**Project Scoping Summary**							
	All Anticipated and Actual Complete Dates	text box	W	V	W	V	W	V
	Save Changes	button	E	E	E	E	E	E
	Reset	button	E	E	E	E	E	E
	Add Single Jurisdiction FIS/FIRM to Project							
	Select	check box	E	E	I	I	I	I
	Add FIS/FIRM to Project	button	E	E	I	I	I	I
	Add Countywide FIS/FIRM to Project							
	Select	check box	E	E	I	I	I	I
	Add FIS/FIRM to Project	button	E	E	I	I	I	I
	County Jurisdictions							
	Select	check box	E	E	I	I	I	I
	Cancel Changes	button	E	E	I	I	I	I
	Unselect All	button	E	E	I	I	I	I
	Select All	button	E	E	I	I	I	I
	Save Changes	button	E	E	I	I	I	I
Post-Preliminary Information	Number of Affected FIRM Panels	text box	W	W	V	V	V	V
	Preliminary FIS/FIRM Issued	text box	W	W	V	V	V	V
	Final Meeting Held	text box	W	W	W	V	W	V
	90-Day Start	text box	W	W	V	V	V	V
	90-Day End	text box	W	W	V	V	V	V
	Appeals/Protests Received (yes)	radio button	E	E	I	I	I	I
	Appeals/Protests Received (no)	radio button	E	E	I	I	I	I
	All Appeals/Protests Resolved	text box	W	W	V	V	V	V
	Revised Preliminary FIS/FIRM Issued	text box	W	W	V	V	V	V
	LFD Issued (Compliance Period Begins)	text box	W	W	V	V	V	V
	FIS/FIRM Sent to MSC	text box	W	W	V	V	V	V
	FIS/FIRM Effective Date	text box	W	W	V	V	V	V
	Comment	text box	W	W	V	V	V	V
	Cancel Changes	button	E	E	I	I	I	I
	Save Changes	button	E	E	I	I	I	I

Table 5. Permissions Matrix								
Screen Name	**Name**	**Object Type**	**MCC**		**CTP**		**SC**	
			Primary	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**
Base Map Information	FIRM Name	text box	W	W	V	V	V	V
	Base Map Type	text box	W	W	V	V	V	V
	Scale/Resolution	text box	W	W	V	V	V	V
	Projection	text box	W	W	V	V	V	V
	Data Date	text box	W	W	W	W	W	W
	Source/Agency	text box	W	W	W	W	W	W
	Horizontal Datum	text box	W	W	W	W	W	W
	Vertical Datum	text box	W	W	W	W	W	W
	Contact Person	text box	W	W	W	W	W	W
	Contact Phone	text box	W	W	W	W	W	W
	Save Changes	button	E	E	E	E	E	E
	Cancel Changes	button	E	E	E	E	E	E
Vertical Datum	Vertical Datum	text box	W	W	W	W	W	W
	Same as Effective (yes)	radio button	E	E	E	E	E	E
	Same as Effective (no)	radio button	E	E	E	E	E	E
	All Sources new/revised (yes)	radio button	E	E	E	E	E	E
	All Sources new/revised (no)	radio button	E	E	E	E	E	E
	Conversion Factor	text box	W	W	W	W	W	W
	Comments	text box	W	W	W	W	W	W
	Save Changes	button	E	E	E	E	E	E
	Cancel Changes	button	E	E	E	E	E	E

* Correspondence Tracker: An additional permissions layer exists here. Anyone may view and edit data in anyone else's correspondence records, but when the "Save Changes" button is clicked by anyone other than the original author, only the Notes field is updated .

XII Document Control

It is anticipated that as the MICS interface is updated and enhanced over time, there will be commensurate changes to the guidance provided in this document. To ensure that this document is controlled and versioned appropriately, the following document control mechanism shall be applied:

- Revisions to this Document: Whenever a change is deemed required to the contents of this document, the FEMA MICS Project Officer will direct and coordinate the changes. The changes will be briefly summarized in the Summary of Changes table located at the front of this document. Each time a change is made to the document, the revision date shall be incorporated throughout the entire document.

- Document Versioning: To ensure appropriate identification of the document version, the cover page of this document and the footer on each page shall list the document date. The placement of the document title in the header of each page will ensure additional document control.